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City of Cambridge

THE MAYOR'S ADDRESS

AT THE

ORGANIZATION OF THE CITY GOVERNMENT

JANUARY 4, 1897

AND

THE ANNUAL REPORTS

MADE TO THE CITY COUNCIL

FOR THE YEAR 1896

PUBLISHED BY ORDER OF THE CITY COUNCIL
UNDER THE DIRECTION OF THE
CITY CLERK.

PRESS OF
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26A BRATTLE ST., CAMBRIDGE, MASS.

ADDRESS

OF

HON. ALVIN F. SORTWELL

MAYOR

DELIVERED BEFORE THE CITY COUNCIL

January 4, 1897

GENTLEMEN OF THE CITY COUNCIL: —

Another year has rolled by and we, as members of the Cambridge City Government for 1897, have assembled here today and taken a solemn obligation to faithfully and honestly perform the duties incumbent upon us. Having celebrated our fiftieth anniversary, this year marks the beginning of what we might term the second start towards our centennial goal in the year 1946, at which point, I trust, we shall arrive as the City of Cambridge, and not as a part of some other municipality.

According to the custom as old as our city, it becomes my duty to call to your attention our financial condition and the needs of the various departments, making at the same time such recommendations as may seem wise and prudent. Those of you who have looked through the various inaugural addresses of past years, have no doubt observed the unanimity with which all my predecessors have urged the same financial policy.

You have found, no doubt, as I have, each strongly recommending that current expenses be paid from the tax levy; that bonds should be issued only for large undertakings, in the cost of which it is proper that those who come after us should participate.

I willingly follow the illustrious examples set me, having been thoroughly trained in this theory when in the City Government. I believe that any expense which comes to us annually should be met from the tax levy, and if this theory, carried out to the letter, as it should be, results in a high tax rate, it will only serve to sooner call the attention of the citizens to the fact that we are progressing too rapidly.

A low tax rate is agreeable to the citizens and to the credit of an administration, if fairly arrived at; but it will not be to our credit to secure a low rate by piling up debts, to be paid by those who come after us. The issuing of bonds is an easy way to take care of expenses and its effect is not seen at once; shortly, the demands for interest and for amount due to the sinking fund appear, with the sure result of high taxes for years or until the debt is again reduced by payments from the sinking fund.

One of our Mayors, under whom I had the honor of serving during his term of four years, expressed my views so fitly that I quote his words as follows: —

"A wise financial policy is the first necessity of good municipal government, and the mainspring of all its work. Such a policy I believe, requires a careful, thorough estimate of all current expenses for the year; the raising, by revenue and taxation of an income sufficient to cover such expenses; and the careful, honest use of every dollar so spent, keeping our expenses within our income. It does not require an economy that would neglect necessary work, or much desired improvement; but if the work is done or the improvement made, that it shall be paid for out of this year's income, and not have the burden hidden in a debt. The people have a right to know and feel the expense we incur. Such knowledge encourages care and responsibility in us, and gives to them an adequate check. Great public improvements, such as a new bridge to Boston, a metropolitan system of drainage, a large trunk sewer, which are expenses, not of one year, but of many, and incurred for the benefit of many, cannot properly or possibly be paid for out of the yearly income, but must be by debt, whose burden is borne by the years that receive the benefit."

This quotation from one of our ablest leaders is worthy of adoption as a proper standard for us to follow.

I feel that in the year 1897, we must exercise the greatest care and give the closest scrutiny to our expenditures, if we expect to obtain the always sought for result of a tax rate satisfactory to the citizens. Our tax rate for the past ten years has varied but $1.40 per thousand; the lowest rate being $15.00 per thousand in 1888, and the highest $16.40 per thousand in 1893. Last year the rate showed a reduction of sixty cents from 1895, but as has been frankly stated by my predecessor, this was due to the failure of the special commissioners to assess our city for its share of the expense of building the Metropolitan sewer. Therefore in 1897, not only must we take care of the assessment for this year, but in addition, the amount omitted in 1896. The assessment for 1896 should have been about $65,000, and in all probability this year's expenses will be the same; so that we shall have to provide for and pay from our tax levy the sum of $130,000, which in itself amounts to over $1.60 per thousand. It would seem as though our city should not be compelled to pay this double assessment in one year, and I trust that a way may be found to relieve us of a part of this large burden.

On the 9th of December last, the City Council passed the following: —

> "*An Ordinance in Relation to Issue of Bonds.* Be it ordained by the City Council of the City of Cambridge as follows: —
>
> "Upon all future loans of the city, the city treasurer shall issue only such an amount of bonds as shall, together with the premium received thereon, meet as nearly as possible the reqirements of the order for each respective loan."

Heretofore, bonds have been issued to the full amount of the order for each loan, and the premium has been carried to various accounts. Some years the premium went for the use of the account or department for which the bonds were issued; at other times to an account called incidentals, and since 1894 to interest account. But the amount received has always been used for current expenses.

This did not make much difference in our financial policy, when but few bonds were issued and little or no premium was paid; but within a few years, on account of largely increased issue of bonds, the amount received as premium became quite large and aided materially in reducing the tax rate for the year in which it was received. There were received from this source in the past few years as follows: —

1896	$47,053 20
1895	32,842 20
1894	43,010 65

or equal to an average annual revenue of fifty cents per thousand.

I believe that the passage of the ordinance was a proper step, and that the only other alternative was to pay the premium to the sinking fund; and I only mention it at this time to call your attention to the loss of revenue we suffer as compared with past years; which, together with the increased burdens mentioned, sustain me in asking you to use all means to keep our expenses within bounds.

I submit a brief statement of our financial condition: —

The bonded water debt Dec. 1, 1896, was	$2,602,600 00
The value of the sinking fund held for said debt	396,347 02
Net value bonded debt	$2,233,252 98
New bonded water debt issued in 1896	665,100 00
The bonded municipal debt Dec. 1, 1896, was	3,313,000 00
The value of the sinking fund held therefor	581,668 24
Net bonded debt (exclusive of water debt)	2,731,331 76

New bonded debt created in 1896:—

For parks	$240,000 00
For sewers	75,000 00
For clay land work	50,000 00
For street widenings	137,000 00
For public buildings	109,000 00
Total	$611,000 00

Increased amount to be provided from tax levy this year on account of new debt of $611,000 will be

For interest	$24,440 00
For sinking fund	17,785 00
Total	$42,225 00

The percentage of new bonded debt, exclusive of water debt, November 30, 1896, is 3.26 per cent. on our valuation of 1896. Of our own bonded municipal debt $1,150,000 is outside of our legal debt limit as fixed by statute law — $400,000 being for "Harvard Bridge and avenue approaching," $700,000 for "Parks," and $50,000 for "Clay-land" work.

Our valuation in 1896 was:—

Personal property	$15,914,995 00
Real estate	67,835,100 00
Total valuation	$83,750,095 00

Borrowing capacity for 1897 will be:—

For city expenses	$327,116 47
For clay lands	50,000 00
For parks	100,000 00
Total	$477,166 47
Net valuation (Avr. 3 years)	$79,721,899 00

Schools. I am indebted to the Superintendent of the Schools for the following school statistics for 1896: —

Number of pupils on the first of December	12,888
Increase over last year	714
Average annual increase from 1891 to 1896 (inclusive)	219
Number of teachers on the first of December	337
Increase over last year	15
Cost of the day schools, not including the expenditures for new school houses	$316,090 83
Increase over last year	17,004 90
Cost of the schools per pupil	26 44
Increase per pupil	44
Cost of instruction in the day schools	245,104 01
Increase in the cost of instruction	9,292 39

Cost of instruction per pupil is the same as for 1894 and 1895.

I would call your attention to the phenomenal increase of the number of pupils in 1896 over the average of the previous years.

The School Committee in its report makes recommendations in regard to alterations and additions to various school houses; advises the building of one grammar school house in ward five, and that the new Latin school house be begun in the spring.

On looking back over the past ten years, I find that the city has built five grammar and primary schools, remodelled and rebuilt three others at about the cost of new buildings, completed and equipped a new English High school and remodelled the present Latin school. If all these school houses have been needed with an average increase of 252 pupils per year, the increase of pupils in 1896 shows that fully one school of the lower grade should be erected each year, and if this is so, the cost of one school building each year becomes an annual expense and should be met by appropriation from the tax levy.

An examination of our school houses by a committee of experts to ascertain their sanitary condition is also suggested.

These matters will be for your consideration when the annual appropriations are before you.

Bridges. Craigie's, Prison Point and Harvard bridges have received their customary care. Our efficient commissioner in his report calls attention to the bad condition of West Boston bridge and also its inadequacy to accommodate the rapidly increasing travel.

The section between this bridge and East Cambridge is destined, I believe, to be filled with manufacturing establishments within a few years, on account of the reasonable price of the land and its nearness to the heart of Boston. The establishments already in this section and on or about Broadway, and those sure to be built in the near future, should be given a safe and commodious outlet to Boston. A modern bridge of sufficient width to take care of the growing traffic is now needed, and I recommend this matter to your consideration, and would suggest that plans and estimates be prepared this year. The present bridge can probably be made safe until preliminary work for a new bridge is finished.

An act to authorize the cities of Boston and Cambridge to construct and maintain a bridge over Charles River at Magazine Street passed the Legislature and was approved on April 27, 1896. An overhead bridge to replace the present Brookline Street bridge is also urged by many of our citizens. Both would be desirable avenues to Cambridge; the latter being the more direct route to Boston, and the former making a direct connection between our park system and that of Brookline and Boston, and also a connecting link between Middlesex and Norfolk counties.

In view of the number of cities and towns in both these counties that would be accommodated by these bridges, it seems as though the counties should bear some proportion of the expense of building, and I hope that efforts will be made to secure this aid from the counties before beginning the work.

Fire Department. Two new engine houses have been completed and occupied in wards three and five during the past year. The apparatus is now in good condition; numerous repairs and renewals having been made during the past year.

The department is now of sufficient size and efficiency to cope with all ordinary fires and no money need be expended for additional houses or apparatus for some years to come.

Police. The report of the Chief will show to you in detail the work done by this department. Cambridge is starting on its eleventh year as a no-license city. During the past ten years the law against illegal liquor selling has been administered under the charge of four chief executives, and I have yet to hear of any serious complaint during that time in regard to its proper enforcement. And so far as in me lies, the law against illegal liquor selling shall be as strictly enforced in 1897 as during any of the previous ten no-license years.

The officers and men of our police force are the same in 1897 as they were in 1896, and holding them as I shall to a strict accountability, I look for the same results that have heretofore prevailed in the enforcement of this and all other laws and ordinances.

Board of Health. Much sickness of a mild and contagious form has prevailed in our city during the past year, but the board has shown itself fully capable of handling the problems coming before it. The matter of protecting our water supply has had the careful attention of the members of the board.

Street Department. The needs of this department are always great; and, from my experience as a member of the committee on roads and bridges, no appropriations large enough to satisfy the superintendent or the committee can be made from our tax levy, until our bonded debt is materially reduced, and we have the use of money now paid to interest and sinking fund account.

I sympathize with this department and regret the numerous adverse criticisms poured out upon those in charge. The fault is not with them, but largely due to lack of funds, for which I can see no remedy at present.

Most of our cross streets are in fairly good condition. Our main avenues running east and west are not in the condition we would wish, nor what a city of our size and prominence demands. Main Street from the bridge to Columbia Street needs repaving; the granite blocks having been torn up and relaid numberless times since the street was first paved. Estimated cost of this work is $16,000. Massachusetts Avenue from Harvard Square to the Arlington line is in bad condition, but nothing can be done between the Square and Beach Street until the Metropolitan water pipe is laid, which work will be done during the spring and summer, and then time should be given to allow the earth to settle before the department begins its work. Between Beach Street and the Arlington line, there is a chance for needed repairs early in the spring.

For doing this work the department has submitted estimates for granite blocks, asphalt, vitrified brick and macadam. Being a residential street, the abuttors naturally wish as noiseless a surface as possible. Vitrified brick is now being used in some Eastern cities, with what success I am unable to say, and do not believe that it has had a test of sufficient length to allow judgment to be passed on its desirability.

I recommend that a beginning be made towards putting this avenue in proper condition.

The superintendent requests that an ordinance be framed forbidding the throwing of litter, such as store sweepings, hand bills, etc., in the streets, and I recommend that steps be taken to carry out his wishes. Such an ordinance passed and enforced would save the cleaning department much work, and keep our streets in a neater condition.

Many of our streets have neither been graded nor resurfaced by the city since their acceptance. They are now lined with houses, and the abuttors are calling for repairs.

The superintendent reports $58,500 as his estimate for this work. He also recommends the paving of Prospect and Portland streets. It is for us to carefully scan his report, and so far as we are able, give him the money for the work, first taking up the most pressing wants.

Wires and Lamps. The inspector of wires states that the wires belonging to the city are in better shape than ever before. His report as inspector of wires and as superintendent of lamps contains much information and many suggestions which deserve your careful consideration.

Inspection of Milk and Vinegar. The inspector has submitted an elaborate report on the sources of our milk and ice supply. His recommendations in regard to the latter has called forth a letter from the Board of Health in regard to preventing the sale of contaminated ice, which, being received by the City Council of 1896 at its last meeting, was referred to you for your action.

Inspection of Buildings. This department has been managed with its usual success. The superintendent will soon be ready to report a revised building ordinance which will require action on your part.

Public Library. Under the present Board of Trustees and the well trained and efficient librarian, new fields for its usefulness are being constantly sought. Its influence is growing wider and wider, and the efforts of those directly in control deserve recognition when our appropriations are made. I think our citizens are willing that liberal appropriations should be granted to the library, feeling that the same progress should be made in the future as has been made since the library building was presented to our city.

The Trustees again call attention to the need of suitable sidewalks on the streets bordering the library ground. The superintendent of streets estimates that about $2,500 would be required for brick sidewalks, and I recommend that an appropriation be made for this much needed improvement.

Sealer of Weights and Measures. The head of this department again recommends the licensing of hawkers and peddlers for various good reasons which you will find in his report. I recommend that you take measures to accomplish what he requests.

Water Board. The total cost of the water works to Nov. 30, 1896, was $4,788,721.24, of which $766,039.32 was expended in 1896.

The authority to issue bonds was exhausted in the recent issue in November. The City Council of last year authorized the Mayor to petition the Legislature for authority to issue $1,000,000 more bonds. These bonds to be used for the completion of Hobbs Brook basin, Payson Park reservoir, new engines, pumps, buildings, etc., at Fresh Pond pumping station, general work and land damages unsettled: all estimated to amount to $590,000, leaving an unexpended balance of $410,000 for future use.

I would call your attention to a request contained in the report of the Board, that the City Council should petition and present a bill to the Legislature for more adequate protection of water supplies. I will make no recommendations in regard to this department, preferring to take the time until appropriations are made to become more familiar with its workings and needs.

Cemetery. The Commissioners desire to complete the work of laying out the unused portion of the cemetery, and ask for the preparation of a suitable map of the cemetery, and the survey of the old burial ground in Ward One; all of which if granted will slightly increase the appropriation over last year.

Sewers. All connections of our Cambridge sewer system with the Metropolitan sewer are now made, and no appropriations for this purpose will be needed hereafter. The drainage of the territory adjacent to "Tannery Brook" so called, has been attended to during the past year. A main trunk sewer is called for to drain the district in and about Sidney Street.

Overseers of the Poor. On account of the late panic, which shut down and restricted the output of many of our manufacturing establishments, it was expected that more demands would be made on the Overseers for aid; yet, up to the present time no great increase of the ordinary calls for assistance has been noticed. The department has been carried on in its usual careful manner. The question of the disposal of house offal will no doubt come before you for action. The present system cannot much longer be maintained.

Parks. The amount expended on construction and general account the past year was $218,460.74. For maintenance, $8,999.67.

With the exception of erecting the lighting system, the rebuilding of Broadway Park has been completed at a total expense of $11,308.65. Much work has been done in the river parkway between Boylston and Scorgie Streets, the details of which you will find in the superintendent's report.

Cambridge field has been practically completed; but little work remaining to be done in the spring. Your attention is called to the "concluding remarks" in the commissioners' report, in which they state the amount of appropriation desired for 1897, and indicate the policy they desire to see maintained. With this department also I wish to become more familiar before making my recommendations.

From necessity, the reports of many departments were submitted to the City Council too late for as thorough an examination as I desired; therefore I have omitted speaking of a few and have not gone elaborately into the needs of the balance. Nor have I made many recommendations, preferring to take the necessary time to acquire the information that a new executive always lacks.

Many important matters that I have not mentioned will no doubt come before you for action, one of them being the demand for a proper transfer station for passengers on the West End railroad at Harvard Square. I believe that the present management of the road will gladly co-operate with you if a feasible plan be presented, which will be satisfactory to the majority of their patrons.

I will dwell no longer on our work for the coming year, but will close by briefly speaking of two events of last year which should not pass unnoticed.

Fiftieth Celebration. The year past being the fiftieth since the adoption of our city charter, it was deemed wise to mark the progress we had made by a few days of celebration and rejoicing.

The effort was such as Cambridge had never seen before, for in years past the celebrations of various events in our history have been very conservative.

Patriotic services were held in the various schools for the benefit of the pupils. Speeches appropriate to the event were delivered in Sanders Theatre by prominent citizens. A large and successful parade held the attention of vast crowds of citizens and visitors during the greater part of June 3d.

A memorial volume was printed under the title of "Cambridge of Eighteen Hundred and Ninety-six," containing brief sketches of our churches, our educational institutions, our charities, our societies, our banking organizations, our business enterprises, and such other matter as would show to the outside world our material prosperity, our progress and the advantages our city offers as a place for business or residence. The work on this volume was well done by a special committee, who secured sketches written by many of our representative citizens, which are well worthy of preservation.

Credit is due to the members of the Citizens' Trade Association as the originators of the idea of a celebration; to the various committees of the city government and private citizens for their good work; to the chief marshal and his assistants for the successful organization and prompt movement of the greatest parade Cambridge ever saw; to the committee and editors of the memorial volume for their able work; and to the citizens generally for their financial aid and hearty co-operation.

Hon. William E. Russell.

During the past year our city was called upon to mourn the loss of one of its former rulers. Not within the recollection of any here, and probably never before, has a citizen of Cambridge, at so early an age, achieved the fame of our late lamented ex-Mayor and ex-Governor William E. Russell. I can safely say that no man who had so seldom gone beyond the bounds of his own State, no man who had visited other States so few times in an official capacity, was so well known throughout the length and breadth of our land.

His ability was recognized by all and his statesmanship seemed destined to carry him forward as a leader among men in broader fields, as it had already done in his well-beloved native city and State. Cut off in his early manhood, his departure from this life on July 16th, 1896, was a sudden shock to us all, and the loss we had sustained was instantly recognized by our city and its citizens.

The large attendance at his funeral services, drawn from all sections of our country and all walks in life, served to show the esteem in which he was held.

Memorial services were held in Sanders Theatre on October 26th last. They were quiet, impressive and appropriate to the memory of the man for whom they were held, as was he worthy of the words there spoken.

The thanks of our city are due to Prof. Charles Eliot Norton for his beautiful eulogy; to Hon. William A. Bancroft for his feeling words spoken in opening; and to the committee in charge for its successful efforts in arranging so satisfactory a memorial.

May the words, deeds and actions of William E. Russell live as an incentive to the youth of our city. May his example be ever before us to lead us to a higher and nobler appreciation of the rights, privileges and advantages which we enjoy as members of this great body of freemen, living under our glorious flag.

Gentlemen of the City Council: —

It has been my good fortune heretofore to have sustained the most pleasant relations with my associates in the city government, and I trust and believe that, in the coming year, the executive will have the cordial support of the legislative branches, as well as that of all the departments.

If our year is a success, to you and to them should be given due praise, for on your action largely depends the results for which we shall strive.

ANNUAL REPORTS

ANNUAL REPORT OF THE CITY AUDITOR.

City Auditor's Office,
Cambridge, December 1, 1896.

To the Honorable the City Council: —

The undersigned herewith presents the annual statement of the receipts and expenditures of the City of Cambridge for the fiscal year beginning on the first day of December, 1895, and ending on the thirtieth day of November, 1896, together with a schedule of the city property.

Respectfully submitted,

HARRY T. UPHAM,
City Auditor.

REPORT OF THE CITY AUDITOR.

Balance in the Treasury November 30th, 1895			$268,516 87
The receipts from all sources from December 1st, 1895, to November 30th, 1896, were as follows: —			
From City Departments		$197,127 01	
Water Works		346,682 63	
Taxes: —			
City	$1,266,747 07		
Corporations	71,949 32		
National Banks	16,064 37		
		$1,354,760 76	
Sale of Bonds: —			
For Public Buildings (School and Engine Houses)	$109,000 00		
Clay Lands	50,000 00		
Parks	240,000 00		
Sewers	75,000 00		
Extension and Widening of Streets	137,000 00		
Extension of Water Works	665,100 00		
		$1,276,100 00	
Temporary Loans in anticipation of taxes		786,000 00	
Park, Betterments		2,505 57	
Perpetual Care of Lots in Cambridge Cemetery		2,585 50	
Sale of City Lands		2,516 00	
Street Improvements		2,360 00	
Commissioners of Sinking Funds, for payment of City Debt		54,00 00	
Trustees of Sinking Fund of Water Works for payment of Water Debt		278,000 00	
Total receipts			$4,302,637 47
Amount carried forward			$4,571,154 34

Amount brought forward			$4,571,154 34
The payments have been as follows: —			
For City Departments		$1,928,109 25	
Water Works		1,045,529 76	
Cemetery Fund (invested)		2,585 50	
City Debt: —			
Sewer Loans, due July 1st, 1896	$ 29,000 00		
Sewer Loan, due Nov. 1st, 1896	25,000 00		
Temporary Loan	786,000 00		
		$840,000 00	
Taxes; —			
Abatements	$17,922 54		
County	78,321 11		
National Bank	6,632 77		
Sale Surplus	58 34		
State	54,600 00		
		$157,534 76	
Water Debt: —			
Water Loan, due April 1st, 1896	$100,000 00		
July 1st, 1896	178,000 00		
		$278,000 00	
			$4,251,759 27
Balance in the Treasury			$319,395 07
The balance in the Treasury is subject to draft for amounts contracted for but not approved, to the amount of			314,659 81
Leaving a net balance in the Treasury of			$4,735 26

CITY FUNDED DEBT.

There has been a decrease in the City Funded Debt during the year by the payment of the following loans: —

Sewer Loan, issued July 1st, 1876, payable July 1st, 1896, with interest at 6 per cent. per annum	$29,000 00	
Sewer Loan, issued Nov. 1st, 1886, payable Nov. 1st, 1896, with interest at 3 1-2 per cent. per annum	25,000 00	
		$54,000 00

There has been an addition to the City Funded Debt during the year as follows: —

Building Loans, registered bonds payable in twenty years at an annual interest of four per cent.			
For City Stables, Ward Five	$44,000 00		
Engine House, Ward Five	16,000 00		
School House, Ward One	40,000 00		
School House, Ward Three	3,000 00		
		$103,000 00	
Clay Land Loan, registered bonds payable in fifteen years, at an annual interest of four per cent.			
For the purpose of defraying the expense incident to the restricting of the land of the Bay State Brick Company, as per agreement of said Company with the City of Cambridge, dated April 16, 1896, in the laying out, accepting and establishing of certain streets, and the building, construction and establishment of main drains or common sewers, within the tract of land so to be restricted and in accordance with the authority conferred by Chapter 175 of the Legislative Acts of the year 1896 . . .		$50,000 00	
Amount carried forward			$153,000 00

Amount brought forward		$153,000 00
Park Loans, registered bonds payable in thirty years, at an annual interest of four per cent.		$240,000 00
School House Loan, registered bond payable in twenty years, at an annual interest of four per cent.		
For the purchase of land for the Putnam School House		$6,000 00
Sewer Loans, registered bonds payable in twenty years, at an annual interest of four per cent.		
For the construction of sundry sewers		$75,000 00
Street Loan, registered bonds payable in twenty years at an annual interest of four per cent.		
For the purpose of defraying the cost of constructing sundry streets as follows:—		
Aberdeen Avenue	$3,500 00	
Boylston Street	70,000 00	
Charles and Vine Streets	17,800 00	
Dunster Street	2,700 00	
Eliot Street	11,000 00	
First Street	30,000 00	
Seventh Street	2,000 00	
		$137,000 00
Total		$611,000 00

	1895.	**1896.**	**Increase.**	
Funded City Debt	$2,756,000 00	$3,313,000 00	$557,000 00	
Sinking Funds	511,816 53	581,668 24	69,851 71	
Net Funded City Debt	$2,244,183 47	$2,731,331 76	$487,148 29	

The following is a statement of the total funded debt of the city, with the rates of interest thereon :—

Bridge Loan.

Date of Issue.	Rate of Interest.	When due.	Amount.	Total.
Oct. 1, 1887	4 per cent.—30 yrs.	Oct. 1, 1917	$10,000 00	
July 1, 1888	4 " —30 "	July 1, 1918	100,000 00	
Sept. 1, 1888	4 " —30 "	Sept. 1, 1918	100,000 00	
Mar. 1, 1889	4 " —30 "	Mar. 1, 1919	115,000 00	
Nov. 1, 1890	4 " —30 "	Nov. 1, 1920	5,000 00	
July 1, 1891	4 " —30 "	July 1, 1921	60,000 00	
July 1, 1891	4 " —10 "	July 1, 1901	15,000 00	
Aug. 1, 1893	4 " —30 "	Aug. 1, 1923	10,000 00	$415,000 00

Building Loan.

May 2, 1892	4 per cent.—10 yrs.	May 2, 1902	$20,000 00	
Nov. 1, 1893	4 " —10 "	Nov. 1, 1903	40,000 00	
Aug. 1, 1894	4 " —20 "	Aug. 1, 1914	118,000 00	
Oct. 1, 1895	4 " —20 "	Oct. 1, 1915	60,000 00	
Oct. 1, 1896	4 " —20 "	Oct. 1, 1916	103,000 00	$341,000 00

Cambridge Cemetery Loan.

Aug. 1, 1885	4 per cent.—20 yrs.	Aug. 1, 1905		$65,000 00

Amount carried forward $821,000 00

Amount brought forward $821,000 00

City Loan.

Date of Issue.	Rate of Interest.	When due.	Amount.	Total.
Aug. 1, 1894	4 per cent.—10 yrs.	Aug. 1, 1904		$52,000 00

Land Loan.

Aug. 1, 1888	4 per cent.—10 yrs.	Aug. 1, 1898		$83,000 00

Park Loan.

Feb. 1, 1894	4 per cent.—30 yrs.	Feb. 1, 1924	$360,000 00	
Aug. 1, 1895	4 “ —40 “	Aug. 1, 1935	100,000 00	
Feb. 1, 1896	4 “ —40 “	Feb. 1, 1936	100,000 00	
Aug. 1, 1896	4 “ —30 “	Aug. 1, 1926	100,000 00	
Oct. 1, 1896	4 “ —30 “	Oct. 1, 1926	40,000 00	$700,000 00

Paving Loan.

Nov. 1, 1892	4 per cent.—10 yrs.	Nov. 1, 1902		$50,000 00

School-House Loan.

May 1, 1890	4 per cent.—10 yrs.	May 1, 1900	$100,000 00	
Jan. 1, 1891	4 “ —10 “	Jan. 1, 1901	100,000 00	
July 1, 1891	4 “ —10 “	July 1, 1901	60,000 00	
Nov. 1, 1892	4 “ —10 “	Nov. 1, 1902	20,000 00	
Oct. 1, 1896	4 “ —20 “	Oct. 1, 1916	6,000 00	$286,000 00

Amount carried forward $1,992,000 00

Amount brought forward $1,992,000 00

Sewer Loan.

July 1, 1873	6 " —30 "	July 1, 1903	$136,000 00	
July 1, 1874	6 " —30 "	July 1, 1904	295,000 00	
July 1, 1875	6 " —30 "	July 1, 1905	144,000 00	
Nov. 1, 1887	4 " —20 "	Nov. 1, 1907	30,000 00	
Nov. 1, 1889	4 " —20 "	Nov. 1, 1909	22,000 00	
May 1, 1890	4 " —20 "	May 1, 1910	15,000 00	
July 1, 1891	4 " —20 "	July 1, 1911	15,000 00	
Aug. 1, 1894	4 " —30 "	Aug. 1, 1924	75,000 00	
Oct. 1, 1895	4 " —30 "	Oct. 1, 1925	60,000 00	
Oct. 1, 1896	4 " —20 "	Oct. 1, 1916	75,000 00	$867,000 00

Street Loan.

May 2, 1892	4 per cent.—10 yrs.	May 2, 1902	$55,000 00	
Aug. 1, 1894	4 " —20 "	Aug. 1, 1914	30,000 00	
Oct. 1, 1895	4 " —20 "	Oct. 1, 1915	60,000 00	
Oct. 1, 1896	4 " —20 "	Oct. 1, 1916	137,000 00	$282,000 00

Street Widening Loan.

Nov. 1, 1889	4 per cent.—10 yrs.	Nov. 1, 1899	$8,000 00	
July 1, 1873	6 " —30 "	July 1, 1903	10,000 00	
July 1, 1874	6 " —30 "	July 1, 1904	90,000 00	
July 1, 1875	6 " —30 "	July 1, 1905	14,000 00	$122,000 00

Clay Land Loan.

July 1, 1896	4 per cent.—15 yrs.	July 1, 1911		$50,000 00

TOTAL FUNDED CITY DEBT, ... $3,313,000 00

THE FUNDED WATER DEBT.

There has been a decrease in the Funded Water Debt during the year by the payment of the following matured Loans: —

Water Loan, issued April 1, 1886, and payable April 1, 1896, with interest at 3 1-2 per cent. per annum . .	$100,000 00
Water Loan, issued July 1, 1876, and payable July 1, 1896, with interest at 6 per cent. per annum . . .	103,000 00
Water Loan, issued July 1, 1886, and payable July 1, 1896, with interest at 3 1-2 per cent. per annum . .	75,000 00
	$278,000 00

There has been an addition to the Water Debt during the year by the issue of registered four per cent. bonds as follows: —

April 1, 1896, due April 1, 1916	$100,000 00
July 1, 1896, due July 1, 1916	200,000 00
Aug. 1, 1896, due Aug. 1, 1916	100,000 00
Oct. 1, 1896, due Oct. 1, 1916	265,100 00
	$665,100 00

	1895.	1896.	Increase.	Decrease.
Funded Water Debt	$2,215,500 00	$2,602,600 00	$387,100 00	
Sinking Fund of Water Works .	546,049 24	369,347 02		$176,702 22
Net Funded Water Debt	$1,669,450 76	2,233,252 98	$563,802 22	

Following is a statement of the total funded water debt of the city, with rates of interest thereon: —

Date of Issue.	Rate of Interest.	When Due.	Amount.	Total.
July 1, 1877	6 per cent.—20 yrs.	July 1, 1897	16,000 00	
July 1, 1878	5 “ —20 “	July 1, 1898	12,500 00	
Nov. 1, 1886	3 1-2 “ —20 “	Nov. 1, 1906	43,000 00	
Oct. 1, 1887	4 “ —20 “	Oct. 1, 1907	90,000 00	
Nov. 1, 1887	4 “ —20 “	Nov. 1, 1907	22,000 00	
July 1, 1888	4 “ —20 “	July 1, 1908	46,000 00	
Aug. 1, 1888	4 “ —20 “	Aug. 1, 1908	25,000 00	
July 1, 1889	4 “ —20 “	July 1, 1909	20,000 00	
May 1, 1885	4 “ —25 “	May 1, 1910	288,000 00	
July 1, 1890	4 “ —20 “	July 1, 1910	75,000 00	
Sept. 1, 1890	4 “ —20 “	Sept. 1, 1910	125,000 00	
Jan. 1, 1891	4 “ —20 “	Jan. 1, 1911	20,000 00	
Oct. 1, 1891	4 “ —20 “	Oct. 1, 1911	35,000 00	
Jan. 1, 1892	4 “ —20 “	Jan. 1, 1912	150,000 00	
May 2, 1892	4 “ —20 “	May 2, 1912	75,000 00	
Nov. 1, 1892	4 “ —20 “	Nov. 1, 1912	45,000 00	
Feb. 1, 1893	4 “ —20 “	Feb. 1, 1913	100,000 00	
Aug. 1, 1893	4 “ —20 “	Aug. 1, 1913	50,000 00	
Apr. 1, 1895	4 “ —20 “	Apr. 1, 1915	200,000 00	
Aug. 1, 1895	4 “ —20 “	Aug. 1, 1915	200,000 00	
Apr. 1, 1894	4 “ —30 “	Apr. 1, 1924	300,000 00	
Apr. 1, 1896	4 “ —20 “	Apr. 1, 1916	100,000 00	
July 1, 1896	4 “ —20 “	July 1, 1916	200,000 00	
Aug. 1, 1896	4 “ —20 “	Aug. 1, 1916	100,000 00	
Oct. 1, 1896	4 “ —20 “	Oct. 1, 1916	265,100 00	$2,602,600 00

Recapitulation.

Amount of funded City Loan upon which interest is at 6 per cent.	$689,000 00	
Amount of funded City Loan upon which interest is at 4 per cent.	2,624,000 00	
		$3,313,000 00
Amount of Water Loan upon which interest is at 6 per cent.	$16,000 00	
Amount of Water Loan upon which interest is at 5 per cent.	12,500 00	
Amount of Water Loan upon which interest is at 4 per cent.	2,531,100 00	
Amount of Water Loan upon which interest is at 3 1-2 per cent.	43,000 00	
		$2,602,600 00

Temporary loans for the past ten years, and interest paid upon the same : —

Year.	Temporary Loan.	Interest paid upon the Loan.
1886	$450,000	5,653 83
1887	555,000	9,222 24
1888	400,000	9,497 36
1889	490,000	5,919 54
1890	425,000	7,570,57
1891	465,000	10,796 25
1892	516,000	8,015, 51
1893	541,850	11,560 32
1894	125,000	3,106 15
1895	550,000	6,194 84
1896	786,000	12,344 07

The Trust Funds

Assumed by the city are held by trustees, and interest is paid upon them at the rate of six per cent. annually, as follows: —

Name of Fund.	Amount.	Interest.	
Daniel White Charity Fund	$5,000	at 6 per cent.	$300
Dowse Institute Fund	10,000	at 6 per cent.	600
Sanders Temperance Fund	10,000	at 6 per cent.	600
	$25,000		$1,500

Cemetery Fund.

Amount of Fund, Nov. 30th, 1895		$33,657 39
RECEIVED.		
For perpetual care of lots in Cambridge Cemetery	$2,585 50	
Interest on investments	1,382 44	
EXPENDED.	$3,967 94	
For care of lots in Cambridge Cemetery	1,277 85	
		$2,690 09
Amount of Fund, Nov. 30th, 1896		$36,347 48
The Fund is held in trust and is invested as follows:—		
City of Cambridge Bonds	$35,500 00	
Cambridgeport Savings Bank	847 48	
		$36,347 48

Commissioners of Sinking Fund.

Amount of Funds, Nov. 30th, 1895		$511,816 53
RECEIVED.		
From City Treasurer, being amount appropriated by the City Council to be derived from taxation	$101,850 00	
Interest accumulations	22,001 71	
		123,851 71
		$635,668 24
EXPENDED.		
For Matured Funded City Debt		54,000 00
Amount of Funds, Nov. 30th, 1896		$581,668 24

Trustees of Sinking Fund of Water Works.

Amount of Fund Nov. 30th, 1895	$546,049 24
RECEIVED.	
From City Treasurer, for amount due and appropriated by the City Council from the Revenue of the Water Works	77,542 50
Interest accumulations	20,067 09
Unexpended revenue of Water Works	3,688 19
	$647,347 02
EXPENDED.	
For Matured Water Bonds	278,000 00
Amount of Fund Nov. 30th, 1896	$369,347 02

Abatement — Taxes.

No appropriation is made for abatements, as the Assessors are expected to allow in the overlay an amount sufficient to cover the same.

The overlay for 1896 was	$25,088 18
The total amount of tax abatements allowed was	17,883 33
Balance available for city purposes	$7,204 85

The abatements allowed by the City Collector on certificates of the Assessors were as follows : —

	Real.	Personal.	Polls.	Total.
Tax of 1891		$37 20		$37 20
" " 1892		25 60		25 60
" " 1893		10 04	$2 00	12 04
" " 1894	$66 36	170 64	10 00	247 00
" " 1895	942 01	2,818 90	42 00	3,802 91
" " 1896	6,123 10	7,529 48	106 00	13,758 58
Street Watering				39 21
	$7,131 47	10,591 86	160 00	$17,922 54

TAXES.

The amount of taxes assessed by the Board of Assessors on the real and personal estates and polls of Cambridge, for the year 1896, was as follows: —

Valuation of real estate	$67,835,100 00
Valuation of personal estate	15,914,995 00
	$83,750,095 00
Assessed at $15.10 per $1,000 gives	$1,264,626 43
23,847 polls at $2	47,694 00
Bank stock (non-residents separately assessed)	6,381 33
	$1,318,701 76

This tax is divided as follows: —

For city purposes*	$1,154,311 14
County assessments	78,321 11
Overlay	25,088 18
State assessments	54,600 00
State charge for non-resident bank stock	6,381 33
	$1,318,701 76

Increase in number of polls since last year: —

1,066 polls at $2.00	$2,132 00
Increase in real estate valuation	3,531,400 00
	$3,533,532 00
Decrease in personal valuation	692,365 00
Gain in valuation since last year	$2.841,167 00
Number of houses in 1896	12,723
Number of houses in 1895	12,304
Number of houses built during the past year	419
Number of horses assessed	4,470
Number of cows assessed	322
Number of swine assessed	52

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* To meet the city expenses the income from various departments is added to this sum raised by taxation.

Polls and Valuation of Polls and Estates, May 1, 1894.

Wards.	Polls.	Valuation of Polls.	Personal.	Real Estate.	Total, Real and Personal.	Dwellings.	Total Tax.
One	3,713	$7,426 00	$6.801.940	$16,371,000	$23,172,940	2,396	$373,558 45
Two....	6,477	12,954 00	3,764,845	14,221,800	17,986,645	3,186	297,142 99
Three ..	3,738	7,476 00	1,864,135	9,026,200	10,890,335	1,606	179,543 29
Four ...	5,507	11,014 00	2,506,800	12,034,300	14,541,100	3,016	240,763 38
Five....	2,737	5,474 00	1,720,600	9,224,000	10,944,600	2,058	178,398 68
Total.	22,172	$44,344 00	$16.658,320	$60,877,300	$77,535,620	12,262	$1,269,406 79

Polls and Valuation of Polls and Estates, May 1, 1895.

Wards.	Polls.	Valuation of Polls.	Personal.	Real Estate.	Total, Real and Personal.	Dwellings.	Total Tax.
One	3,846	$7,692 00	$6,326,020	$17,214,500	$23,540,520	2,417	$377,278 16
Two....	6,701	13,402 00	3,973,565	14,736,600	18,710,165	3,209	307,151 59
Three ..	3.762	7,524 00	1,910.375	9,145,800	11,056,175	1,629	181,105 94
Four ...	5,557	11,114 00	2,490,900	13,571,400	16,062,300	3,083	263,292 11
Five....	2.915	5,830 00	1,906,500	9,635,400	11,541,900	1,967	187,037 83
Total.	22,781	$45,562 00	$16,607,360	$64,303,700	$80,911,060	12,305	$1,315,865 64

Polls and Valuation of Polls and Estates, May 1, 1896.

Wards.	Polls.	Valuation of Polls.	Personal.	Real Estate.	Total, Real and Personal	Dwellings.	Total Tax.
One	3,964	$7,928 00	$5,973,100	$18,095,700	$24.068,800	2,483	$371,366 88
Two....	7,170	14,340 00	3,642,760	15,335,400	18,978,160	3,340	300,910 21
Three ..	3,693	7,386 00	1,919,935	9.311,100	11,231,035	1,636	176,974 63
Four ...	5,880	11,760 00	2,494.800	14,823,200	17,318,000	3.158	273,261 80
Five....	3,140	6,280 00	1.884,400	10.269,700	12,154,100	2,106	189,806 91
Total.	23,847	$47,694 00	$15,914.995.	$67,835,100	$83,750,095	12,723	$1,312,320 43

Statement of the valuations of the personal property and real estate of the City of Cambridge, with the number of polls, dwellings, and rate of taxation for the past ten years: —

Year.	Polls.	Personal.	Real Estate.	Total.	Dwellings.	Rate per $1,000.
1887	17,139¼	$13,358,910	$46,344,700	$59,703,610	9,761	$16 00
1888	18,086¾	14,296,740	48,420,600	62,717,340	9,927	15 00
1889	18,307½	14,960,100	50,324,175	65,284,275	10,222	16 00
1890	19,221¾	15,339,925	52,235,000	67,574,925	10,615	15 60
1891	20,731¼	16,508,770	54,167,914	70,676,684	10,932	15 50
1892	22,013¼	17,687,595	56,668,100	74,355,695	11,359	15 00
1893	22,752	17,511,089	58,782,900	76,293,989	11,768	16 40
1894	22,172	16,658,320	60,877,300	77,535,620	12,262	15 80
1895	22,781	16,607,360	64,303,700	80,911,060	12,305	15 70
1896	23,847	15,914,995	67,835,100	83,750,095	12,723	15 10

Abatements and discounts upon taxes for the past ten years, and amount of tax uncollected December 1, 1896: —

Year.	Total Tax.	Total Abatement.	Total Discounts.	Amount of Tax uncollected Dec. 1, 1896.
1887	$995,964 90	$15,443 74	$26,054 53	
1888	982,829 50	21,667 20	25,366 53	
1889	1,088,374 60	20,982 71	28,081 09	
1890	1,099,741 38	20,966 82	28,012 44	
1891	1,143,712 67	21,343 12		$11,811 90
1892	1,240,186 50	21,636 54		14,214 40
1893	1,303,639 84	24,678 10		17,535 56
1894	1,278,899 72	26,926 07		17,179 92
1895	1,324,613 76	19,427 40		26,488 77
1896	1,321,932 65	17,922 54		237,378 85

The valuations of estates in this city, for the years hereinbefore mentioned, are the same as originally made by the Board of Assessors, during those years, and the same figures were reported by that board to the Tax Commissioners for each of the years respectively. These valuations were subject to changes in each year, after such report was made, as shown by the following: —

Net valuations of estates in the City of Cambridge for the past three years, after adding the amounts of all supplementary warrants and deducting therefrom all abatements: —

Year.	Total Valuation.	Abatements.	Net Valuation.
1894	$77,680,920	$1,589,166	$76,091,754
1895	81,126,960	1,067,769	80,059,191
1896	83,918,895	904,144	83,014,751
	$242,726,775	$3,561,079	$239,165,696

Borrowing Capacity.

The average net valuation of the City of Cambridge for the years 1894, 1895 and 1896, is	$79,721,899

This last sum represents the amount upon which the limit of the rate of taxation, and also of municipal indebtedness is fixed under the provisions of Chapter 312 of the Acts of the year 1885.

2 1-2 per cent. on the same is			$1,993,047 47
The entire City Debt is		$3,313,000 00	
Of this amount the following loans are not within the legal debt limit, being exempted by the following Acts of the Legislature:—			
Harvard Bridge Loan.			
Acts of 1887, Chapter 282 Acts of 1888, Chapter 73 Acts of 1891, Chapter 311	$400,000 00		
Amounts carried forward .	$400,000 00	$3,313,000 00	$1,993,047 47

Borrowing Capacity — Continued.

Amounts brought forward .		$400,000 00	$3,313,000 00	$1,993,047 47
Park Loan.				
Acts of 1892, Chapter 341 Acts of 1893, Chapter 337 Acts of 1894, Chapter 89		700,000 00		
Clay Land Loan.				
Acts of 1896, Chapter 175		50,000 00		
			$1,150,000 00	
			$2,163,000 00	
The entire Sinking Fund is .		$581,668 24		
Of this amount there should be deducted on account of Exempted Loans:—				
"Harvard Bridge"	$68,386 42			
"Park" . . .	16,162 82			
		84,549 24		
Net Sinking Fund			497,119 00	
Net City Debt Dec. 1, 1896				$1,665,881 00
Borrowing capacity for City purposes, Dec. 1, 1896				$327,166 47
Borrowing capacity for "Clay Lands" .				50,000 00
Borrowing capacity for "Parks" . . .				100,000 00

"ACTS OF 1885, CHAPTER 312.

"AN ACT TO LIMIT MUNICIPAL DEBT OF AND THE RATE OF TAXATION IN CITIES.

"Be it enacted, etc., as follows: —

"SECTION 1. The taxes assessed on property in any city, except the city of Boston, exclusive of state tax, county tax and sums required by law to be raised on account of the city debt, shall not exceed in any year twelve dollars on every one thousand dollars of the average of the assessors' valuations of the taxable property therein for the preceding three years, the valuation being first reduced by the amount of all abatements allowed thereon, previous to the thirty-first day of December in the year preceding said assessment, and any order or appropriation requiring a larger assessment than is herein limited shall be void.

"SECTION 2. The limit of indebtedness of cities shall hereafter be two and one-half per cent. on the average valuation prescribed in Section one of this act."

TAX LEVY.

Average net valuation for 1894, 1895 and 1896	$79,721,899
	12
	159443798
	79721899
Assessed at $12.00 per $1,000 gives	$956,662,788

Which is the legal limit of taxation for municipal purposes for 1897, outside of the Sinking Fund requirements, Interest on the Debt and State and County Tax, unless advantage is taken of the following Legislative Act of 1893:—

ACTS OF 1893, CHAPTER 247.

" AN ACT AUTHORIZING ASSESSORS IN CITIES OF LESS THAN ONE HUNDRED THOUSAND INHABITANTS TO USE THE VALUATION OF THE YEAR PRECEDING AS A BASIS OF TAXATION.

" Be it enacted, etc., as follows:—

" SECTION 1. In every city containing less than one hundred thousand inhabitants the taxes assessed on property, exclusive of State Tax, County Tax and sums required by law to be raised on account of City Debt, shall not exceed in any year twelve dollars on every one thousand dollars of the assessors' valuation of the taxable property, therein for the preceding year, said valuation being first reduced by the amount of all abatements allowed thereon previous to the thirty-first day of December in the year preceding said assessment, and any order or appropriation requiring a larger assessment than is herein limited shall be void; but, the city council of any city coming within the provisions of this Act, may, in any year, decide that the taxes assessed shall be raised in accordance with the provisions of Section one of Chapter three hundred and twelve, of the Acts of the year eighteen hundred and eighty-five."

In which case the net valuation for 1896 being	$83,014,751
	12
	166029502
	83014751
Assessed at $12.00 per $1,000. gives.	$996,177,012

Balance Sheet of the City of Cambridge, December 1, 1896, Showing Assets and Liabilities.

	Assets.	Liabilities.
Cemetery Fund	$36,347 48	
City Debt (Contingent)		$200,000 00
City of Cambridge (City Property)	4,383,989 21	
City Treasury (Cash)	319,395 07	
Daniel White Charity (Trust Fund)		5,000 00
Dowse Institute Fund (Trust Fund)		10,000 00
Funded City Debt		3,313,000 00
Funded Water Debt		2,602,600 00
Park Betterments	108,264 28	
Sanders Temperance Fund (Trust Fund)		10,000 00
Sinking Funds	581,668 24	
Sinking Fund of Water Works	369,347 02	
Taxes due the City	324,609 40	
Tax Liens	17,470 37	
Tax Sale "Surplus"		491 07
	$6,141,091 07	$6,141,091 07

Estimated Revenue and Actual Revenue for Year Ending November 30, 1896.

	Estimated.	Actual.
Ambulance Department	$300 00	$186 00
Bridge Department	700 00	812 07
Cemetery Department	18,000 00	18,050 36
City Clerk's Department	2,400 00	2,537 75
Contingent Fund		654 70
Election Expenses		300 00
Engineering Department	4,000 00	3,645 51
Executive Department		22 50
Fire Department	100 00	140 00
Inspection of Milk and Vinegar	150 00	150 50
Inspection of Wires	400 00	266 88
Interest	30,000 00	57,734 21
Lamp Department		203 00
Law Department	2,100 00	2,100 00
Overseers of the Poor: —		
Almshouse Department	850 00	1,042 79
Farm and Ledge	15,000 00	13,263 10
House Offal	9,000 00	9,155 35
Outside Aid	5,000 00	5,757 62
Park Department: —		
Construction	5,500 00	3,548 18
Maintenance		32 56
Plumber's Examiners		30 00
Police Department	6,000 00	6,830 45
Amounts carried forward	$99,500 00	$126,463 53

Estimated Revenue and Actual Revenue — Continued.

Amounts brought forward	$99,500 00	$126,463 53
Public Library	4,500 00	4,396 95
Public Property	3,500 00	3,672 73
School Department: —		
Salaries	2,000 00	1,814 16
Text Books and Supplies	300 00	391 40
Sealer of Weights and Measures	500 00	492 40
Sewers	15,300 00	12,811 38
State Aid	14,500 00	14,217 94
Stationery and Printing	1,200 00	1,110 91
Street Department: —		
Paving, etc	17,000 00	20,883 77
Watering	8,500 00	8,924 83
Treasury Department	1,500 00	1,947 01
Taxes: —		
Corporation	65,000 00	71,949 32
National Bank (net)	9,000 00	9,431 60
Taxes 1895	175,000 00	182,163 27
Taxes 1896	1,146,932 65	1,084,553 80
City Lands		2,516 00
Park Betterments		2,505 57
Street Improvements		2,360 00
	$1,564,232 65	$1,552,606 57

After the annual appropriations had been made, the following additional appropriations were made and provided for by a City Debt, viz : —

For Construction of Public Buildings:—		
City Stable, Ward Five	$44,000 00	
New Latin School House	250,000 00	
New School House, Ward One	5,000 00	
Putnam School House	6,000 00	
		$305,000 00
Construction of Sewers:—		
Broadway	$12,500 00	
First Street	7,500 00	
Massachusetts Avenue	3,100 00	
Sundry Sewers	10,000 00	
		33,100 00
Construction of Sewer and Streets in Clay Lands		50,000 00
Construction of Streets:— (including land damages)		
Boylston Street	$4,440 00	
Dunster Street	2,766 00	
Eighth Street	6,000 00	
Eliot Street	11,000 00	
McDonald Street	3,500 00	
		27,706 00
		$415,806 00

After the annual appropriations had been made the following appropriations were made and provided for by transfers and surplus revenues, viz : —

Ambulance Department	$52 39
City Clerk Department	207 04
Clerk of Committees Department	25 34
Contingent Fund	1,139 18
Election Expenses	551 23
Interest	434 07
Amount carried forward	$2,409 25

Amount brought forward		$2,409 25
Overseers of the Poor:—		
Almshouse Department	$169 28	
Farm and Ledge Department	394 33	
House Offal Department	1,284 51	
Outside Aid	2,031 69	
		3,879 81
Public Property:—		
Heating Apparatus, City Hall	$3,129 00	
New Engine House, Ward Three	333 30	
School Houses, Care and Repairs	544 83	
Shooting Range	525 00	
		4,532 13
School Department:—		
Text Books and Supplies		1,437 22
Sewers:—		
Broadway	$1,500 00	
Maintenance	1,641 63	
		3,141 63
Street Department:—		
Bridges	$266 34	
Collection of Ashes	348 26	
Maintenance	95 98	
Resurfacing Webster Avenue	6,000 00	
		6,710 58
Water Works:—		
Refunds	$152 49	
Sinking Funds	3,688 19	
		3,840 68
		$25,951 30

Transfers.

The following transfers were made from the appropriations mentioned, to make up deficiencies occurring in the appropriations to which transfers were made, viz.: —

From the Appropriation for	Amounts.	To the Appropriation for	Amounts.
Contingent fund	$11,842 44	Public Property: — New Engine House, Ward Three	$333 30
		Shooting Range	525 00
		Broadway Sewer	1,500 00
		Ambulance Dept.	52 39
		City Clerk Dept.	207 04
		Clerk of Coms. Dept.	25 34
		Election Expenses	551 23
		Interest	434 07
		Overseers of the Poor: Almshouse Dept.	169 28
		Farm and Ledge	394 33
		House Offal	1,284 51
		Outside Aid	2,031 69
Public Property: —		Public Property: — School Houses, Care and Repair	544 83
City Buildings	333 30		
Lamp Department	3,500 00	School Department: — Text Books and Supplies	1,437 22
Police Department	1,500 00	Sewers, Maintenance	1,641 63
Street Department: —		Street Department:	
Watering	1,500 00	Bridges	266 34
		Collection of Ashes	348 26
Sewer Department: —		Maintenance	95 98
Massachusetts Avenue	1,500 00	Contingent Fund	8,333 30
	$20,175 74		$20,175 74

Expenditures of the Different Departments from 1891 to 1896 inclusive.

Names of Departments.	Expended in 1891.	Expended in 1892.	Expended in 1893.	Expended in 1894.	Expended in 1895.	Expended in 1896.
Ambulance Department				$625 00	$2,269 15	$2,452 39
Assessors' Department	$9,585 82	$10,665 86	$10,922 58	10,919 65	12,797 40	12,943 24
Auditing Department	$3,118 43	3,167 32	3,445 86	3,983 67	3,352 03	3,567 88
Cemetery Department	18,131 22	16,791 09	19,462 59	17,998 89	16,999 40	20,000 00
City Clerk Department	5,656 66	5,996 68	5,978 12	6,229 55	6,404 25	7,107 04
City Messenger Department	2,533 83	2,518 16	2,525 96	2,587 54	2,645 92	2,763 59
Civil Service Department	224 80	225 00	240 50	224 50	275 00	249 97
Clerk of Committees Department	3,428 36	3,451 52	3,526 06	3,597 37	3,708 47	3,925 34
Contingent Fund	8,075 97	7,212 36	10,847 07	15,348 28	14,514, 68	16,139 18
Election Expenses	7,385 56	10,557 49	12,044 88	9,692 50	9,476 60	12,463 99
Engineering Department	9,448 59	9,902 11	9,644 00	15,279 50	22,743 52	14,211 55
Executive Department	2,583 60	4,387 95	4,641 40	4,825 08	5,362 15	5,414 08
Fire Department	66,773 83	61,016 48	61,627 27	72,488 69	82,171 99	85,467 88
Health Department	4,392 39	4,887 62	5,475 37	6,097 88	11,482 98	16,999 55
Inspection of Milk and Vinegar	1,041 24	999 90	1,298 76	1,350 00	1,388 14	1,586 24
Inspection of Provisions, etc				756 06	747 89	793 60
Inspection of Wires	7,299 85	12,548 88	9,545 07	10,148 01	10,399 82	11,999 74
Interest	127,180 58	134,036 63	136,877 92	126,289 20	118,099 84	132,099 07
Lamp Department	47,989 92	63,862 68	66,615 93	68,988 81	69,926 61	67,325 31
Law Department	2,830 94	3,044 37	3,206 19	3,272 94	3,970 45	5,197 44
Overseers of the Poor Department	83,104 59	88,370 89	97,570 17	100,810 42	100,841 33	105,379 81
Park Department			339 13	258,276 09	222,475 05	256,490 43

Expenditures of the Different Departments from 1891 to 1896 inclusive — Continued.

Plumbers' Examiners Department				119 95	153 81	101 05
Police Department	98,363 28	104,547 24	111,581 80	110,244 91	110,784 22	110,111 14
Public Library	13,426 22	13,638 57	14,585 44	29,875 62	21,064 83	18,493 00
Public Property	204,185 24	178,324 92	149,280 61	187,922 57	154,289 89	176,264 31
School Department	213,934 48	224,670 38	238,018 21	248,265 10	258,766 08	272,481 50
Sealer of Weights and Measures	1,560 44	1,684 10	1,654 93	1,598 95	1,491 29	1,570 52
Sewer Department	52,893 68	42,324 49	40,597 04	92,635 43	87,553 59	106,688 27
Sinking Funds	75,170 00	91,770 00	104,095 00	100,390 00	106,940 00	93,765 00
State Aid	22,693 05	25,262 30	25,469 80	24,669 55	23,159 91	23,209 03
Stationery and Printing	2,998 70	2,677 87	2,533 89	2,739 13	2,843 14	2,939 79
Street Department (Roads and Bridges)	299,284 55	310,948 66	243,032 63	285,348 54	259,953 37	323,912 86
Treasury Department	11,629 03	11,680 62	12,179 00	12,542 01	13,471 50	13,995 46
Water Works Department	297,901 16	497,772 78	430,846 12	420,688 47	758,054 81	1,045,529 76
Taxes: —						
Abatements	19,719 39	23,647 67	24,678 10	26,926 07	19,427 40	17,922 54
County	49,851 13	60,845 07	63,569 57	68,110 25	73,887 84	78,321 11
Metropolitan Sewer		6,809 57	17,363 62	45,483 43	61,886 21	
National Bank	6,851 10	7,459 69	6,659 26	7,372 24	7,136 92	6,632 77
State	46,440 00	54,495 00	77,850 00	62,280 00	46,800 00	54,600 00
Total	$1,827,687 63	$2,102,201 62	$2,029,829 49	$2,467,001 85	$2,729,717 48	$3,131,115 43

Comparative Statement by Decades from 1855 to 1895.

	1855.	1865.	1875.	1885.	1895.
Population..........	20,637	29,112	47,838	59,660	81,643
Valuation...........	$15,437,100 00	$26,085,900 00	$66,623,014 00	$55,346,555 00	$80,911,060 00
City Tax	100,604 53	267,708 60	1,060,396 52	804,800 00	1,103,455 30
County Tax	10,137 78	18,280 99	37,580 73	29,381 54	73,887 84
State Tax...........	5,190 00	118,487 00	58,880 00	44,835 00	46,800 00
Tax rate per $1,000..	7 10	15 00	17 00	15 50	15 70
Total Expenditures.	173,533 58	536,911 82	2,605,267 74	2,354,298 69	3,686,702 54
City Debt	146,600 00	833,092 00	4,106,843 21	2,361,396 50	3,913,634 23
Expenditures by Departments: —					
Bridges	890 31	9,007 77	39,068 39	11,829 77	16,297 33
Cemeteries......	6,553 67	16,742 29	19,438 66	80,399 22	16,999 40
Fire Dept.......	9,623 70	21,958 74	89,949 99	59,341 15	104,898 59
Lighting Streets	2,987 32	9,062 24	20,919 04	32,269 07	69,926 61
Pauper Dept....	8,520 41	21,481 52	79,719 54	56,338 24	100,841 33
Police Dept.....	4,499 56	22,833 14	71,093 35	78,357 73	110,784 22
Public Library..		1,111 77	6,040 04	6,643 51	21,034 83
Schools	32,169 16	81,842 47	258,985 15	227,511 77	362,353 79
Sewers	4,610 68	3,683 07	135,432 28	40,945 40	149,459 89
Streets	14,554 73	35,638 38	155,476 90	148,088 65	252,154 62
Water Works		20,327 79	234,431 03	485,691 04	758,054 81

APPROPRIATIONS AND EXPENDITURES.

The Amount of the Several Appropriations made by the City Council during the Year — The Transfers from One Appropriation to Another — The Expenditures in Detail under each Appropriation, and the Unexpended Balances, Nov. 30, 1896.

APPROPRIATIONS AND EXPENDITURES.

Ambulance Department.

Appropriation			$2,400 00
Transferred from Contingent Fund			52 39
			$2,452 39

RECEIVED.

For Fees from sundry persons		$186 00	

EXPENDED.

For Salaries:—			
Superintendent Dr. L. L. Bryant	$125 00		
Drivers:—			
Warren H. Dow	776 29		
Geo. E. Sherman	776 29		
Joseph Sinclair	22 00		
		$1,699 58	
Ambulance repairs, Chas. Waugh & Co.		193 65	
Board of horse and use of Telephone, Whiting and Smith		493 55	
Carriage heater, M. W. Cross & Co.		4 75	
Harness		8 35	
Horse shoeing		23 00	
Horse clipping		3 00	
Laundry work		18 32	
Stationery and supplies		8 19	
Total			$2,452 39

Assessors' Department.

Appropriation			$13,000 00
EXPENDED.			
For Salaries of Assessors:—			
Joshua G. Gooch	$2,000 00		
Andrew J. Green	2,000 00		
Samuel L. Montague	2,000 00		
Assistant Assessors:—			
John M. Davis	336 00		
Edwin K. Hall	308 00		
Warren Ivers	304 00		
Arthur M. Stewart	330 00		
D. B. Shaughnessy	200 00		
Clerks:—			
Carrie A. Estes	720 00		
Helen P. Hooker	720 00		
Jessie I. R. Waterman	300 00		
Ida G. Wellington	360 00		
Temporary Clerks	2,173 12		
		$11,751 12	
Abstracts, Byron Boyd		22 50	
Advertising, Cambridge Chronicle Co.		1 41	
Binding, J. H. H. McNamee		1 00	
Car tickets, W. E. Street Railway Co.		50 00	
Carriage hire:—			
J. E. Fabyan	$10 00		
M. J. Fairbanks	6 00		
		16 00	
Directories:—			
E. F. Hunt & Co.	$3 00		
Sampson, Murdock & Co.	5 00		
		8 00	
Expressage		60	
Map-rolls, D. C. Scranton		1 25	
Stationery and printing:—			
Cambridge Chronicle Co.	$ 5 00		
Cotton & Gould	198 49		
James H. Cox	2 00		
Harvard Printing Co.	30 00		
Amounts carried forward	$235 49	$11,851 88	$13,000 00

Assessors' Department — Continued.

Amounts brought forward . .	$235 49	$11,851 88	$13,000 00
E. W. S. Jones	36 25		
Lombard & Caustic . .	707 00		
Henry M. Meek	2 00		
Stationery Department .	76 24		
Thorp, Martin Co. . . .	3 13		
E. W. Wheeler	26 25		
		1,086 36	
Subscription, Banker and Tradesman . .		5 00	
Total			12,943 24
Balance unexpended			$56 76

Auditing Department.

Appropriation			$3,600 00
EXPENDED.			
For Salaries of			
City Auditor, Harry T. Upham	$2,100 00		
Clerk, Esther L. Cogan .	782 50		
Temporary Clerks . . .	227 40		
		$3,109 90	
Bindings, J. H. H. McNamee		7 00	
Directory, E. F. Hunt & Co.		3 00	
Electric Fan, Clark & Mills		16 00	
Labor, Geo. Buzzell		10 00	
Shades, W. W. Pratt		12 00	
Stamps and repairs, L. W. Poole . . .		5 00	
Stationery, printing, postage and supplies:—			
F. L. Beunke	$2 50		
F. S. Blanchard	1 50		
Cambridge Co-operative Society	87 31		
Cotton & Gould	41 94		
James H. Cox	77 50		
E. W. S. Jones	8 50		
Lombard & Caustic . . .	15 75		
Geo. H. Richter & Co. .	1 75		
Amounts carried forward . .	$236 75	$3,162 90	$3,600 00

Auditing Department — Continued.

Amounts brought forward . .	$236 75	$3,162 90	$3,600 00
E. Smith	1 50		
Stationery Department .	80 73		
John Wilson & Son . .	86 00		
		404 98	
Total			3,567 88
Balance unexpended			$32 12

Bridge Department.

Appropriation			$14,000 00
RECEIVED.			
For Rents, Wharfage, etc. . .	$812 07		
EXPENDED.			
For Salaries of			
Bridge Commissioner and Harbor Master, Wm. J. Marvin	$800 00		
Clerk, Charles S. Parsons	250 00		
Draw-tenders and Assistants	3,865 00		
		$4,915 00	
Advertising		15 51	
Badges, John Robbins M'f'g Co. . . .		1 62	
Car-fares and Messenger Fees:—			
Charles S. Parsons		62 30	
Cash for labor and supplies:—			
M. F. Corkery	$183 79		
Jas. A. Gorman	1 30		
A. W. Smith	210 54		
N. E. Story	73 06		
		468 69	
Current for Harvard Bridge Draw, Cambridge Electric Light Co.		150 00	
Fuel:—			
Geo. M. Winslow & Co. .	$183 56		
Thomas & Pike	43 15		
		226 71	
Amounts carried forward		$5,839 83	$14,000 00

Bridge Department — Continued.

Amounts brought forward		$5,839 83	$14,000 00
For Furniture, Paine's Furniture Co.		8 16	
Ice		9 25	
Inspection, M. F. Corkery		23 50	
Lighting:—			
Boston Electric Light Co.	$711 67		
Cambridge Electric Light Co.	1,336 25		
		2,047 92	
Lumber:—			
John S. Clary	$264 04		
W. H. Ellis & Co.	75 85		
E. B. James & Co.	4 96		
Geo. H. Jennings, Jr.	277 69		
Geo. McQuesten & Co.	317 02		
E. D. Sawyer & Co.	122 32		
Wm. H. Wood & Co.	28 90		
		1,090 78	
Oils, Paints etc.:—			
Leonard & Ellis	3 60		
Merrill, Dexter & Co.	158 44		
Standard Oil Co.	6 50		
		168 54	
Repairs:—			
Carpentry, Josiah Shaw	$2,276 66		
Electric, Thomas Ridlon Co.	8 76		
Iron work, Miller & Shaw	353 15		
Painting, etc., sundry persons	233 62		
Paving, Austin Ford & Son	85 02		
		2,957 21	
Rope, etc.		16 83	
Salt and Sand		2 35	
Sprinkling, Proctor Bros. & Co.		700 00	
Stationery and printing:—			
City of Boston	$3 32		
A. R. Andrews	4 63		
J. L. Fairbanks & Co.	11 34		
Rockwell & Churchill	16 20		
		35 49	
Amounts carried forward		$12,899 86	$14,000 00

Bridge Department — Continued.

Amounts brought forward		$12,899 86	$14,000 00
For Teaming:—			
Austin Ford & Son	$85 37		
Charles Linehan	152 88		
Charles McMahon	9 50		
John Quin	45 75		
		293 50	
Tools, hardware and supplies:—			
Ames Plow Co.	$4 25		
J. H. Corcoran & Co.	7 99		
Dame, Stoddard & Kendall	2 52		
Dodge, Haley & Co.	138 83		
Geo. W. Darling	3 62		
McKenney & Waterbury	5 02		
Osgood & Hart	3 37		
J. M. Price & Son	29 81		
Smith & McKay	2 45		
Somerville Iron Foundry	16 99		
Whittier Hardware Co.	10 18		
		225 03	
Use of Pile Driver and Piles, John T. Scully & Bro.		45 12	
Water Rates		39 24	
Window Glass, A. W. Hastings & Co.		7 60	
Total			13,510 35
Balance unexpended			$489 65

Cemetery Department.

Appropriation		$20,000 00
RECEIVED.		
For Burials	$4,743 00	
Care and repair	3,506 11	
Foundations	1,140 54	
Grading and sodding	514 70	
Grass	20 00	
Interest on Cemetery Fund	1,277 85	
Myrtle graves	11 00	
Rent	66 67	
Amounts carried forward	$11,279 87	$20.000 00

Cemetery Department — Continued.

Amounts brought forward		$11,279 87	$20,000 00
For Sales of lots		6,435 59	
Sale of building		105 00	
Slate graves		138 00	
Sundries		91 90	
		$18,050 36	
EXPENDED.			
For Salaries of			
Supt., Chas. S. Childs . .	$1,550 00		
Asst. Supt., Henry C. Hobbs	1,006 50		
Bookkeeper, J. Watson Taylor	1,098 00		
Clerk, Edward J. Brandon	100 00		
Laborers	10,544 15		
		$14,298 65	
Advertising		43 59	
Boundary posts, Austin Ford & Son . .		84 00	
Brooms, Stephen Adams		5 00	
Canvass covers, Alex. S. Ford		33 60	
Carriage hire:—			
J. Callahan	$5 00		
F. P. Merrill	4 00		
Whiting & Smith . . .	18 00		
		27 00	
Binding, Robert Burlen		7 00	
Car-tickets, W. E. Street Railway Co. .		20 00	
Cutting figures, J. J. Horgan		29 41	
Decorating monument, N. E. Dec. Co. .		2 50	
Directories, W. A. Greenough & Co. . .		5 00	
Disinfectants, C. W. Lerned & Co. . .		14 40	
Drainage System, David Scanlon . . .		2,164 30	
Expressage, Hatch & Co.		3 15	
Fuel, Baker, Hunnewell Co.		43 40	
Grave boxes and tablets:—			
Wm. L. Lockhart . . .	$36 00		
H. H. Matthews . . .	192 00		
Alex. McDonald & Sons .	177 00		
		405 00	
Granite Fender, Wight & Scorgie . . .		2 00	
Amounts carried forward		$17,188 00	$20,000 00

Cemetery Department — Continued.

Amount brought forward		$17,188 00	$20,000 00
For Hardware, tools, etc.:—			
Baldwin, Robbins & Co. .	$9 00		
Broadway Iron Foundry .	10 50		
Burditt & Bynner . . .	148 61		
M. L. Scorgie	1 84		
D. J. Wild & Co. . . .	1 00		
		170 95	
Harness repairs:—			
Thomas McMahon . . .	$3 00		
J. F. Nolan	92 35		
		95 35	
Hay and Grain, E. R. Luke & Co. . . .		101 37	
Horse shoeing:—			
Wm. Balmer	$13 50		
G. W. Lowd	28 00		
		41 50	
Landscape Architects, Gray & Blaisdell .		800 00	
Lawn Sprinklers, J. B. Fellows & Co. .		12 75	
Lumber, etc., Geo. W. Gale Lumber Co. .		105 96	
Manure, Joseph Finnick		317 04	
Photos, W. H. Lertora		20 00	
Plumbing, D. J. Wild & Co.		18 25	
Postage:—			
Edw. J. Brandon . . .	$15 00		
Chas. S. Childs	58 00		
		73 00	
Repairs:—			
Furnace, D. J. Wild . . .	$25 20		
Furniture, Wm. C. Craig .	3 55		
Pump, E. W. Clark . .	5 00		
Roof, John J. Blevins . .	21 12		
Tools, Chapman Carriage Co.	29 32		
Wight & Scorgie . . .	5 25		
Water Works	10 00		
		99 44	
Scrapings, Street Department		8 10	
Amounts carried forward		$19,051 71	$20,000 00

Cemetery Department — Continued.

Amounts brought forward		$19,051 71	$20,000 00
For Signs:—			
H. E. Hobbs	$12 50		
Eben Tucker	5 00		
J. E. Steffens	5 50		
		23 00	
Stationery and Printing:—			
Amee Bros.	$42 07		
Cambridge Chronicle Co. .	75		
Cambridge Co-operative Co	9 28		
Cotton & Gould	41 55		
Lombard & Caustic . . .	92 75		
		186 40	
Sods, James Gray		230 07	
Sprinkling, Street Department		45 00	
Stone, James Gray		95 73	
Supplies, George A. Wood		2 64	
Telephone rent and tolls		79 70	
Trees, Plants and Seeds:—			
Joseph Buck & Sons . .	$1 90		
P. O'Brien & Son . . .	83 00		
Jacob W. Manning . . .	96 00		
John A. Otterson . . .	8 60		
		189 50	
Teaming, John Doody		96 25	
Total			$20,000 00

City Clerk Department.

Appropriation		$6,900 00
Transferred from Contingent Fund		207 04
		$7,107 04
RECEIVED.		
For Fees from sundry persons	$2,537 75	
EXPENDED.		
For Salaries of		
City Clerk, Edw. J. Brandon	$3,000 00	
Asst. City Clerk, Albert M. Pear	1,400 00	
Amounts carried forward . .	$4,400 00	$7,107 04

City Clerk Department — Continued.

Amounts brought forward	$4,400 00		$7,107 04
Clerk, Amanda Richardson	546 00		
Temporary Clerks	527 90		
		$5,473 90	
Badges, Burditt & Bynner		45 00	
Badges, (redeemed) E. J. Brandon		23 75	
Binding, J. H. H. McNamee		7 65	
Book-rest, Rourke & Kennedy		4 00	
Canvassing for births.—			
John M. Davis	$70 50		
M. F. Ellis	46 50		
Warren Ivers	54 00		
Jas. E. Lennon	67 50		
John Loughrey	69 00		
		307 50	
Cash for legislative bulletins, E.J.Brandon		24 63	
Directories:—			
E. F. Hunt & Co.	$3 00		
Sampson, Murdock & Co.	5 00		
		8 00	
Expressage:—			
American Express Co.	1 60		
Hatch & Co.	90		
Savage & Son	2 80		
		5 30	
Furniture repairs, Rourke & Kennedy		2 50	
Mounting Maps, George Davis		12 75	
Pamphlet Boxes, Library Bureau		13 50	
Posting and serving notices:—			
John M. Davis	$48 45		
Walter F. Hayward	13 15		
J. A. McLane	6 00		
F. E. Shaw	137 78		
		205 38	
Reporting births		259 00	
Stationery and printing:—			
F. L. Beunke	$4 00		
F. S. Blanchard	1 50		
Amounts carried forward	$5 50	$6,392 86	$7,107 04

City Clerk Department — Continued.

Amounts brought forward		$6,392 86	$7,107 04
Cambridge Chronicle Co.	$119 18		
Cambridge Co-operative So.	32 20		
John Cashman & Co.	10 50		
Cotton & Gould	64 91		
James H. Cox	50 75		
H. C. Dimond & Co.	5 75		
J. Frank Facey	34 50		
John H. Ford	222 00		
E. W. S. Jones	16 50		
Lombard & Caustic	2 50		
J. H. H. McNamee	6 04		
Henry M. Meek	1 75		
Stationery Dept.	142 10		
		$714 18	
Total			$7,107 04

City Messenger Department.

Appropriation			$2,800 00
EXPENDED.			
For Salaries of			
City Messenger, Francis L. Pratt	$1,800 00		
Assistant City Messenger, Chas. M. Jones	417 33		
		$2,217 33	
Carriage hire:—			
J. E. Fabyan	$4 00		
Whiting & Smith	5 00		
		9 00	
Car tickets, W. E. Street Railway Co.		40 00	
Directories:—			
E. F. Hunt & Co.	$6 00		
Sampson, Murdock & Co.	5 00		
		11 00	
Amounts carried forward		$2,277 33	$2,800 00

City Messenger Department — Continued.

Amounts brought forward		$2,277 33	$2,800 00
For Expressage:—			
Hatch & Co.	$47 80		
Savage & Son	.80		
		48 60	
Rent of P. O. Box:—			
J. W. Coveney		10 00	
Stationery and Printing:—			
F. L. Beunke	$5 75		
Cambridge Chronicle Co.	6 75		
James Cox	2 00		
L. J. Hewitt	11 60		
Stationery Dept.	194 66		
Sundries	3 50		
		224 26	
Telephone rent and tolls		203 40	
Total			2,763 59
Balance unexpended			36 41

Civil Service Department.

EXPENDED.

Appropriation			$250 00
For Salary of			
Clerk, Harry L. Lincoln		$200 00	
Expressage		15	
Stationery and Printing:—			
Cambridge Chronicle Co.	3 00		
Cotton & Gould	28 55		
Thorp & Martin Co.	18 27		
		49 82	
Total			249 97
Balance unexpended			.03

Clerk of Committees Department.

Appropriation	$3,900 00
Transferred from Contingent Fund	25 34
Amount carried forward	$3,925 34

Clerk of Committees Department — Continued.

Amount brought forward			$3,925 34

EXPENDED.

For Salaries of			
Clerk of Committees, John McDuffie	$2,400 00		
Assistant Clerk of Committees, Eben W. Pike	1,200		
		3,600 00	
Advertising, Cambridge Chronicle Co.		8 37	
Car tickets, W. E. Street Railway Co.		20 00	
Directories:—			
E. F. Hunt & Co.	$3 00		
Sampson, Murdock & Co.	5 00		
		8 00	
Stationery, Printing, etc.:			
F. S. Blanchard & Co.	$1 50		
Cambridge Chronicle Co.	52 65		
Cotton & Gould	33 35		
James H. Cox	7 00		
L. J. Hewitt	38 20		
T. F. Martin	5 75		
Geo. H. Richter & Co.	36 22		
Stationery Dept.	108 15		
Sundries	1,65		
		284 47	
Subscriptions:—			
Cambridge Chronicle Co.	2 50		
James Cox	2 00		
		4 50	
Total			$3,925 34

Contingent Fund.

Appropriation	$10,000 00
Transferred from sundry departments	8,333 30
	18,333 30
Transferred to sundry departments	11,842 44
Amount carried forward	$6,490 86

Contingent Fund — Continued.

Amount brought forward			$6,490 86
Revenue appropriated			4,648 32
			$11,139 18

RECEIVED.

For Fees for use of ambulance	$3 00		
Hawkers' and pedlers' licenses	250 00		
Liquor licenses	53 00		
Paige's "History of Cambridge"	51 00		
Rent of land	166 70		
Sidewalk damages . . .	125 00		
Taxes (old)	6 00		
	$654 70		

EXPENDED.

For Band concerts:—			
Band stands, W. H. Norris	$110 67		
Cleaning, Charles River Park	15 00		
Lighting, Cambridge Electric Light Co.	110 25		
Music, Cambridge Manual Training School . . .	320 00		
Use of chairs, Brock Bros.	17 50		
		$573 42	
City Council expenses:—			
Salaries of			
Clerk, Edw. A. Counihan	$300 00		
Page, Chas. M. Jones . .	100 00		
Carriage hire	137 50		
Car tickets, W. E. Street Railway Co.	400 00		
Engrossing Memorial Resolutions:—			
Frank L. Wells	50 00		
J. R. Wilson	13 50		
Amounts carried forward . .	$1,001 00	$573 42	$11,139 18

Contingent Fund — Continued.

Amounts brought forward	$1,001 00	$573 42	$11,139 18
For Expenses attending funeral of Gov. Greenhalge	22 00		
Floral designs:—			
Wm. E. Doyle	105 00		
P. O'Brien & Son	25 00		
Picture frame tablet, etc.	2 50		
Refreshments, M. R. Jones	52 00		
W. S. Sprague	5 50		
Stamp, H. C. Dimond & Co.	1 60		
City seal, Cambridge Co-Operative Society	9 25		
Cushing's "Law and Practice," Little, Brown & Co.	12 00		
		1,235 85	
Damages awarded and suits settled:—			
James Adams	$30 00		
James Adams *et al*	20 00		
Margaret J. Bell	240 00		
Alice Bradhurst	150 00		
Adelaide Cahill	350 00		
John Coughlin	82 99		
Wm. J. Crothers	300 25		
Chas. H. Gilbert	100 00		
Annie Lampron	125 00		
Honora McDonough	550 00		
Catherine McNamee	50 00		
Wm. A. Morrison	50 00		
Charles W. Pierce	10 00		
Warren C. Potter	200 00		
John Ryan	450 00		
Luke Ryan	60 00		
Michael Sullivan	162 00		
Mary G. Waite	124 90		
Joseph W. Young	750 00		
		$3,805 14	
Expenses of ex-Gov. Russell's funeral:—			
Decorations of plants and flowers, Wm. E. Doyle	$95 00		
Amounts carried forward	$95 00	$5,614 41	$11,139 18

Contingent Fund — Continued.

Amounts brought forward . .	$95 00	$5,614 41	$11,139 18
Draping City Hall, N. E. Decorating Co. . . .	200 00		
Services, Wyeth Bros. .	50 00		
Use of saddle horses, Whiting & Smith . .	28 00		
Use of horse equipments, National Lanciers . .	16 50		
		$389 50	
Expenses, considering purchase of Electric light plant:—			
Advertising	$20 50		
Posting, F. E. Shaw . .	5 50		
Printing, Camb. Chronicle Co.	7 50		
Use of hall, St. John's Literary Institute . . .	20 00		
		53 50	
Expenses, notifying to muzzle dogs:—			
Clerical assistance, H. K. Small	$10 57		
Postage	41 00		
Posting notice	75		
Stationery and printing:—			
Cambridge Chronicle Co. .	10 75		
Cotton & Gould	3 40		
James H. Cox	10 00		
		76 47	
Expenses of Russell Memorial:—			
Bust of ex-Gov. Russell, A. DaPrato & Co. . .	$6 00		
Carriage hire	9 50		
Cash advanced, Jas. A. Wood	1 00		
Draping theatre, Col. Beals Decorating Co. .	50 00		
Engraving:—			
John A. Lowell & Co. .	65 00		
Suffolk Eng. Co. . . .	5 00		
Amounts carried forward . .	$136 50	$6,133 88	$11,139 18

Contingent Fund — Continued.

Amounts brought forward . .	$136 50	$6,133 88	$11,139 18
Expenses of Sanders Theatre, Harvard University	13 46		
Floral decorations, Wm. E. Doyle	44 00		
Music, Jas. C. Bartlett .	80 00		
Postage	4 50		
Printing, Camb. Co-operative Society	21 00		
James H. Cox .	1 50		
Louis F. Weston	6 50		
Rosettes, H. W. Münch & Co.	8 75		
Services, Wm. H. Eveleth	4 00		
		320 21	
Invalid Tax Titles:—			
Stephen P. Weld . . .	$11 59		
Willard Welsh	93 70		
		105 29	
Labor on wires at Engine House Three, Inspection of Wire Department . . .		9 20	
Liquor License fees, Com. of Mass. . .		13 25	
Mats, County of Middlesex		36 00	
Memorial Day expenses		1,000 00	
Moving bell and repairing same at Engine House Three, Fifield, Richardson & Co.		85 80	
Paige's "History of Cambridge," Houghton, Mifflin & Co.		655 00	
Professional services during Dr. Bryant's absence, Dr. P. F. Ela		60 00	
Proprietors' Records:—			
Clerical assistance, Sarah S. Jacobs	$62 00		
Expressage, Hatch & Co . .	15 94		
Postage	6 60		
Printing, John Wilson & Co.	1,475 33		
Stationery, Cotton & Gould .	14 25		
Sundries	15 03		
		1,589 15	
Recording deeds, Chas. B. Stevens . . .		139 90	
Amounts carried forward		$10,147 68	$11,139 18

Contingent Fund — Continued.

Amounts brought forward		$10,147 68	$11,139 18
For Ringing bells on Holidays		348 00	
Services:—			
Geo. A. P. Codurse	$30 00		
Wm. B. Durant	350 00		
		380 00	
Services of Architect, concerning location of Engine House on Massachusetts Av., Wait & Cutter		30 00	
Sign for portrait, Jas. D. Hunting		1 50	
Town records, preparing printer's copy, Sarah S. Jacobs		232 00	
Total			11,139 18

Fiftieth Anniversary.

Appropriation	$5,000 00
EXPENDED.	
For Expenses, John L. Odiorne, Treasurer	5,000 00

Election Expenses, City Clerk.

Appropriation			$6,800 00
Additional appropriation transferred from Contingent Fund			168 82
			$6,968 82
RECEIVED.			
For Rebate on bill		$300 00	
EXPENDED.			
For Precinct Officers		$4,513 50	
Police Officers		359 00	
Bell Ringers		12 00	
Clerical Assistance:—			
S. S. and A. Jacobs	$25 00		
Amanda Richardson	34 00		
Helen K. Small	6 20		
Sundry persons	10 25		
		75 45	
Amounts carried forward		$4,959 95	$6,968 82

Election Expenses, City Clerk — Continued.

Amounts brought forward		$4,959 95	$6,968 82
For Advertising:—			
Cambridge Chronicle Co.	$48 67		
James Cox	97 75		
F. S. Hill	99 01		
		245 43	
Barge hire:—			
A. Nixon	$54 00		
John Nixon	72 00		
		126 00	
Boxes, Charles Place		6 50	
Carriage hire:—			
J. E. Fabyan	$9 50		
Aaron Hale	11 00		
Lake & Moynahan	5 00		
Whiting & Smith	10 00		
		35 50	
Car tickets, W. E. Street Railway Co.		10 00	
Expressage and moving furniture:—			
P. Biggin	$31 00		
Sundry persons	2 65		
		33 65	
Folding and stitching ballots:—			
J. H. H. McNamee		32 55	
Hardware, tools, etc., Burditt & Bynner		8 15	
Labor, Thos. J. Denton		61 64	
Lunches:—			
M. R. Jones	$16 00		
W. S. Sprague	22 86		
		38 86	
Posting and serving:—			
John M. Davis	35 20		
F. E. Shaw	18 50		
		53 70	
Repairs on Ballot Boxes, Robert S. Robson		27 50	
Stationery, Printing, Postage:—			
Amee Bros.	5 15		
Cambridge Chronicle Co.	32 70		
Amounts carried forward	$37 85	$5,639 43	$6,968 82

Election Expenses — City Clerk — Continued.

Amounts brought forward.	$37 85	$5,639 43	$6,968 82
Cambridge Co-Operative Soc.	60 52		
Cotton & Gould	92 76		
Jas. H. Cox	48 50		
J. Frank Facey	25 00		
John H. Ford	20 50		
Harvard Printing Co.	18 00		
Lombard & Caustic	162 85		
J. H. H. NcNamee	*785 00		
Stationery Dept.	43 64		
Standard Crayon Co.	20 00		
		1,314 62	
Sundries		14 77	
Total			$6,968 82

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* Actual amount paid, $485.00; amount rebated on account of error in draft, $300.00.

Election Expenses — Registrars of Voters.

Appropriation			$4,000 00

EXPENDED.

For Salaries of Registrars of Voters and Clerk:—			
Isaac Bradford	$500 00		
Isaac Bradford, Jr., Clerk	100 00		
Wm. J. Breen	500 00		
James Cox	500 00		
Isaac S. Pear	500 00		
		2,100 00	
Clerical Assistance:—			
Anne Jacobs	$202 00		
Sundry Persons	16 40		
		218 40	
Advertising:—			
D. A. Buckley	$27 24		
Cambridge Chronicle Co.	7 13		
James Cox	31 25		
F. S. Hill	31 25		
		96 87	
Binding, J. H. H. McNamee		87 10	
Car tickets, W. E. Street Railway Co.		5 00	
Amounts carried forward		$2,507 37	$4,000 00

Election Expenses — Registrars of Voters — Continued.

Amounts brought forward		$2,507 37	$4,000 00
For Carriage hire:—			
J. Callahan	$19 00		
Aaron Hale	12 00		
		31 00	
Carpentry, W. H. Norris		47 00	
Labor, Thos. J. Denton		36 00	
Posting, John M. Davis		36 00	
Stationery, Printing, Posting:—			
Jas. H. Cox	$15 50		
Cotton & Gould	6 50		
E. W. S. Jones	24 30		
Stationery Dept. . . .	8 77		
John Wilson & Son . .	894 82		
		949 89	
Sundries		5 50	
Total			3,612 76
Balance unexpended			$387 24

Election Expenses — *Superintendent of Public Buildings.*

Appropriation			$1,500 00
Additional Appropriation transferred from Contingent Fund			382 41
			$1,882 41

EXPENDED.

For Carpentry, W. H. Norris		$853 66	
Electric fixtures, N. W. Turner Co. . .		13 88	
Lighting apparatus, Geo. F. Dickson . .		8 75	
Preparing rooms for voting		424 62	
Rent:—			
Charles Beck Post, 56, G. A. R.	$65 00		
Citizens' Trade Association	32 00		
E. L. Green	72 00		
Mt. Sinai Bldg. Asso'n. .	40 00		
Odd Fellows Hall Asso'n.	80 00		
Amounts carried forward .	$289 00	$1.300 91	$1,882 41

Election Expenses — Superintendent of Public Buildings — Continued.

Amounts brought forward	$289 00	$1,300 91	$1,882 41
The Prospect Union	80 00		
Red Jacket Vet. Fireman's Asso'n	52 50		
St. John's Literary Institute	100 00		
P. J. White	60 00		
		581 50	
Total			$1,882 41

Engineering Department.

Appropriation			$12,000 00
RECEIVED.			
Received from Water Works for services of Engineering Department		$3,645 51	
EXPENDED.			
For Salaries of			
City Engineer, L. M. Hastings	$3,000 00		
Assistants	6,167 45		
Clerk, Mary E. Rowen	375 00		
Temporary Clerk, Nellie Holbrook	230 00		
		$9,772 45	
Boundary stones, Austin Ford & Son		15 60	
Boxes, Seaver Manufacturing Co.		65 00	
Car tickets, W. E. Street Railway Co.		250 00	
Cash expended, L. M. Hastings		10 05	
Consulting engineer, Edw. S. Shaw		100 00	
Cotton, etc., D. W. Hyde & Co.		9 53	
Directory, Sampson, Murdock & Co.		5 00	
Expressage, Hatch & Co.		6 05	
Furniture and furnishings:—			
W. Fillmore & Co.	$40 00		
Rourke & Kennedy	48 10		
		88 10	
Amounts carried forward		$10,321 78	$12,000 00

Engineering Department — Continued.

Amounts brought forward		$10,321 78	$12,000 00
For Hardware, tools and supplies:—			
Burditt & Bynner	$7 07		
F. A. White	36 11		
Alexander Wight	9 75		
		52 93	
Level books, etc., Wadsworth, Howland & Co.		115 24	
Photographic supplies, blue prints, Benj. French & Co.		80 58	
Surveying and engineering instruments and repairs:—			
Buff & Berger	$15 40		
Chas. C. Hutchinson	18 50		
Miller & Shaw	5 61		
		39 51	
Stationery, printing, drawing materials:—			
Cotton & Gould	$86 54		
Cambridge Co-operative Society	30 07		
Frost & Adams	291 98		
Franklin Educational Co.	69 74		
J. Hildreth & Co.	5 00		
George H. Ritcher & Co.	40 50		
E. G. Soltman	6 90		
Stationery Department	86 24		
Thorp & Martin Co.	8 25		
		625 22	
Sundries		34 53	
Tool bags, Tobias & Wall		10 00	
Telephone rent and tolls		122 00	
Total			$11,401 79
Balance unexpended			$598 21

Engineering Department — Assessors' Plans.

Appropriation			$3,000 00
EXPENDED.			
For Salaries of Engineers		$2,666 41	
Drawing materials:—			
Frost & Adams	$16 35		
Thorp & Martin Co.	4 80		
		21 15	
Mounting plans:—			
S. Stanley Whitehead		32 20	
Plan case:—			
E. A. Blacklock & Co.		90 00	
Total			$2,809 76
Balance unexpended			$190 24

Executive Department.

Appropriation			$5,500 00
EXPENDED.			
For Salaries of			
Mayor, Wm. A. Bancroft	$3,500 00		
Clerk, Edward A. Counihan	1,000 00		
Stenographers	270 00		
		$4,770 00	
Carriage hire: —			
Lake & Moynahan	$23 50		
Whiting & Smith	66 50		
		90 00	
Car tickets, W. E. Street Railway Co.		40 00	
Directory, Sampson, Murdock & Co.		5 00	
Photographs, Pach Bros.		88 00	
Picture frames:—			
The Sprague & Hathaway Co.	$13 40		
J. F. Ollson	61 70		
		75 10	
Amounts carried forward		$5,068 10	$5,500 00

Executive Department — Continued.

Amounts brought forward		$5,068 10	$5,500 00
For Stationery, printing, etc.:—			
Cambridge Co-Operative Soc.	$23 43		
Cotton & Gould	45 35		
James H. Cox	17 75		
John H. Ford	6 50		
J. Hildreth & Co.	3 00		
E. F. Hunt & Co.	1 00		
Stationery Department	67 92		
Sundries	2 93		
E. S. Webster	1 50		
L. F. Weston	8 25		
		177 63	
Telephone rent and tolls		168 35	
Total			5,414 08
Balance unexpended			85 92

Fire Department.

Appropriation		$85,500 00
RECEIVED.		
For board of horse	$104 00	
Old horse	25 00	
Old material	11 00	
	$140 00	
EXPENDED.		
For Salaries of		
Chief, T. J. Casey	$1,800 00	
Acting Chief, Chas. W. Brackett	54 23	
District Chiefs:—		
C. W. Brackett	343 75	
N. W. Bunker	375 00	
W. B. Cade	375 00	
Permanent men as per payrolls	43,057 77	
Amounts carried forward	$46,005 75	$85,500 00

Fire Department — Continued.

Amounts brought forward	$46,005 75		$85,500 00
For Call men as per pay-rolls	18,175 11		
Substitutes	22 00		
		64,202 86	
Apparatus and repairs:—			
Manchester Locomotive Works, (New Engine)	$3,500 00		
Manchester Locomotive Works, (Rebuilding engines)	3,350 00		
A. J. Applegate	10 00		
Henry K. Barnes	16 00		
Chas. E. Berry	16 50		
Cornelius Callahan	25 00		
Wm. Campbell & Co.	14 91		
Chapman Carriage Co.	26 30		
Combination Ladder Co.	30 00		
Gibbs & Nelson	10 00		
D.H. Grant & Co.	27 25		
A. J. Jones	38 10		
T. H. Kneeland	20 50		
John Lane	47 15		
Loeb Respirator Co.	50 00		
Manchester Locomotive Works	145 29		
M. F. Marks, Agent for Lunt & Sylvester	22 00		
John McIntosh	63 00		
Miller & Shaw	33 46		
C. N. Perkins & Co.	12 00		
Chas Waugh & Co.	13 00		
Geo. S. Willis	40 00		
Sundry Persons	42 65		
		7,553 11	
For Board and care of sick horse:—			
Lake & Moynahan		8 00	
Amounts carried forward		$71,763 97	$85,500 00

Fire Department — Continued.

Amounts brought forward		$71,763 97	$85,500 00
For Brushes, dusters and brooms:—			
W. G. Hallock	$11 00		
Jordan & Christie . . .	12 50		
F. Pelkey	8 75		
		32 25	
Buttons, Scovill Mfg. Co.		34 43	
Carriage hire:—			
Lake & Moynahan . . .	$10 00		
Jas. McGovern	10 00		
Whiting & Smith	12 00		
		32 00	
Copper waste, Edw. H. Haskell		34 48	
Expressage and teaming:—			
Thos. McSorley	$26 25		
Savage & Son	6 25		
Sundry persons	7 65		
		40 15	
Fire hats and badges:—			
Hopkins & Wright . . .	$40 00		
Sundry persons	10 00		
		50 00	
Freight		11 20	
Fuel:—			
Baker, Hunnewell Co. .	$1,563 29		
Coleman Bros.	13 38		
H. Wellington & Co. . .	618 46		
Geo. M. Winslow & Co. .	40 04		
Weighing, H. W. Brooks	9 00		
		2,244 17	
Furniture, furnishings, bedding:—			
D. W. Hyde & Co. . . .	13 80		
W. W. Pratt	112 00		
Worcester Bros. . . .	548 81		
		674 61	
Hardware, tools and supplies:—			
Brock Bros.	$5 81		
Burditt & Bynner . . .	194 14		
S. C. Higgins	12 70		
J. M. Price & Son . . .	18 30		
Amounts carried forward . .	$230 95	$74,917 26	$85,500 00

Fire Department — Continued.

Amounts brought forward	$230 95	$74,917 26	$85,500 00
H. H. Tilton	$5 00		
J. R. Worthen	5 25		
		241 20	
Harness and repairs:—			
Chas. E. Berry	$121 00		
James Curry	85 05		
Owen Doherty	35 55		
F. Ivers & Son	26 75		
G. A. Morse	33 75		
Wm. H. Roberts	38 55		
Sundry persons	5 15		
		345 80	
For hay, grain and straw:—			
J. S. Bradeen	$955 68		
Otis S. Brown & Co.	468 64		
W. F. Holmes	26 46		
E. R. Luke & Co.	2,034 93		
McPherson Bros.	219 78		
Geo. G. Wright	175 28		
		3,880 77	
Horse shoeing:—			
Wm. Balmer	$48 75		
Wm. Bell	59 00		
James Bolger	65 50		
T. Burke	78 50		
P. J. Callahan	85 00		
P. H. Dardis	44 75		
Donahue Bros.	81 25		
W. F. Garrett	81 50		
John F. Gurry	123 75		
Bernard Smith	76 00		
Thomas Smith	60 00		
		804 00	
Horses, P. H. Dardis		720 00	
Hose, etc.:—			
Boston Woven Hose Co.	$1,573 53		
Cornelius Callahan Co.	37 00		
		1,610 53	
Amounts carried forward		$82,519 56	$85,500 00

Fire Department — Continued.

Amounts brought forward		$82,519 56	$85,500 00
For Ice:—			
Cambridge Ice Co.	$22 20		
Fresh Pond Ice Co.	28 85		
Independent Ice Co.	6 00		
		57 05	
Ladders and repairs, C. W. H. Moulton & Co.		153 25	
Lamps, Beacon Lamp Co.		18 75	
Lanterns, S. F. Hayward & Co.		36 85	
Laundering:—			
Lewis R. Speare & Co.	$102 32		
University City Laundering Co.	81 32		
		183 64	
Lighting:—			
Cambridge Elec. Light Co.	$221 07		
Cambridge Gas Light Co.	914 83		
		1,135 90	
Mason work, Wm. Kelley		6 00	
Oil:—			
Kimball, Freed & Co.	$15 00		
Lustralis Mfg. Co.	24 00		
Meyers Putz Pomade Co.	5 25		
Standard Oil Co.	44 39		
Vacuum Oil Co.	15 45		
		104 09	
Packing, Gould Packing Co.		6 60	
Printing and stationery:—			
Cambridge Co-Operative Society	$8 75		
James H. Cox	17 00		
Stationery Department	8 82		
		34 57	
Professional services, Boston Veterinary Hospital		7 50	
Refreshments:—			
John M. Hall	$15 00		
Mansion House	15 00		
Mrs. Mary S. Sullivan	20 00		
		50 00	
Amounts carried forward		$84,313 76	$85,500 00

Fire Department — Concluded.

Amounts brought forward		$84,313 76	$85,500 00
For Shavings, C. W. H. Moulton & Co.		11 00	
Soap, Chas. R. Teele		10 75	
Sulpho Napthol, Sulpho Napthol Co.		22 50	
Sundry Supplies:—			
C. W. Carman	$30 07		
J. A. Holmes & Co.	89 75		
H. N. Hovey & Co.	9 30		
M. R. Jouett & Co.	7 99		
Ryder & Davis	7 33		
Useful Novelty Co.	7 20		
Geo. A. Wood	15 70		
Sundry Persons	15 60		
		182 94	
Switches, Inspection of Wires		30 00	
Telephone rent and tolls		97 97	
Use of men and horses:—			
T. A. Callaghan	$105 00		
Colby Bros.	144 00		
F. J. Coulter	34 50		
Elizabeth Cox	90 00		
P. H. Dardis	90 00		
Jas. C. Doherty	7 50		
John Doody	109 50		
Austin Ford & Son	96 00		
Thomas McSorley	5 50		
John F. Quinn	96 50		
		778 50	
Vitriol, soda and chemicals:—			
Cochrane Chemical Co.		20 46	
Total			85,467 88
Balance unexpended			$32 12

Health Department.

Appropriation		$17,000 00
EXPENDED.		
For Salaries of		
Medical Inspector, Dr. E. Farnham	$3,000 00	
Amounts carried forward	$3,000 00	$17,000 00

Health Department — Continued.

Amounts brought forward . .	$3,000 00		17,000 00
Sanitary Inspectors: —			
Chas. A. Lincoln . . .	837 50		
John McCormick . . .	802 15		
Daniel W. Parker . . .	780 00		
Drivers of Vans: —			
John A. Jackson . . .	624 00		
Richard M. O'Brien . .	624 00		
Secretary, Jas. B. Soper .	1,200 00		
Clerical assistant. B. E. Dunn	373 64		
		$8,241 29	
Advertising: —			
Cambridge Chronicle Co. .	$ 90		
James Cox	9 00		
		9 90	
Board at the Cambridge Hospital . . .		2,453 32	
Burial, H. D. Litchfield		18 00	
Carriage hire: —			
Irving Blake	$53 00		
Whiting & Smith . . .	8 00		
		61 00	
Car tickets, W. E. Street Railway Co. .		300 00	
Cash paid for burying dead animals . .		74 75	
Copper boxes and swabs, Brock Bros. . .		90 00	
Diphtheria examinations: —			
Harold C. Ernst, M. D.		1,568 00	
Disinfecting, City of Boston		202 00	
Drugs, etc.: —			
Walter A. Claflin . . .	$138 00		
Theo. Metcalf & Co. . .	5 00		
Geo. M. Olive	9 70		
		152 70	
Dry goods, etc.: —			
Jordan, Marsh & Co. . .	$9 82		
Chas. B. Wilber . . .	5 56		
Sundry Persons	6 27		
		21 65	
Gas fittings: —			
Brock Bros.	19 91		
S. C. Higgins	1 00		
		20 91	
Amounts carried forward		$13,213 52	$17,000 00

Health Department — Continued.

Amounts brought forward		$13,213 52	$17,000 00
For Harness and repairs, etc.: —			
L. C. Chase & Co.	$19 19		
Rand & Cheever	66 25		
Wm. H. Roberts	8 80		
		94 24	
Horse board and storage, Whiting & Smith		602 75	
Horse-shoeing, W. F. Garrett		47 38	
Making bags, Mrs. W. Arbuckle		14 37	
Medical supplies and apparatus: —			
Harvard Co-operative Society	$87 51		
Geo. B. Henshaw, M. D.	69 74		
S. C. Higgins	30 83		
		188 08	
Microscope, Harvard Co-operative Society		114 00	
Nurses: —			
Minnie H. Burns	$22 00		
Mrs. M. M. Buchanan	53 24		
M. A. Pride	128 50		
Waltham Registry for Nurses	4 00		
		207 74	
Professional services: —			
L. L. Bryant, M. D.	$42 00		
Paul F. Ela, M. D.	111 00		
Geo. B. Henshaw, M. D.	775 00		
F. G. Cook	87 00		
		1,015 00	
Runners for vans and repairs: —			
Chapman Carriage Co.		167 75	
School Inspectors: —			
Frank F. Carr, M. D.	$120 40		
Geo. A. Coburn, M. D.	120 40		
Jos. D. Couch, M. D.	47 63		
B. D. Davis, M. D.	120 40		
A. W. Dudley, M. D.	120 40		
W. A. Putnam, M. D.	120 40		
N. V. Shannon, M. D.	120 40		
		770 03	
Amounts carried forward		$16,434 86	$17,000 00

Health Department — Concluded.

Amounts brought forward		$16,434 86	$17,000 00
For Serving Notices: —			
Fred H. Seavey	$26 04		
Walter C. Wardwell	10 44		
		36 48	
Stationery and printing: —			
Cambridge Co-operative Society	$13 72		
Cambridge Chronicle Co.	20 25		
Cotton & Gould	49 10		
James H. Cox	119 00		
Sundry Persons	8 88		
		210 95	
Sundries		23 84	
Tables and shelves, John Barker		8 78	
Telephone rent and tolls		143 50	
Tools, hardware and supplies:—			
Burditt & Bynner	$23 28		
Geo. H. Mason & Co.	17 05		
Sundry persons	6 11		
		46 44	
Typewriter in exchange, Wyckoff, Seamans & Benedict		72 50	
Typewriting and stenography		22 20	
Total			$16,999 55
Balance unexpended			$ 45

Inspection of Milk and Vinegar.

Appropriation			$1,600 00
RECEIVED.			
For milk and butterine licenses	$150 50		
EXPENDED.			
For Salaries of			
Inspector, F. A. Dunbar	$900 00		
Deputy, John F. Wheeler	318 25		
		$1,218 25	
Car tickets, West End Street Railway Co.		60 00	
Cash expended for sundries, F. A. Dunbar		37 90	
Amounts carried forward		$1,316 15	$1,600 00

Inspection of Milk and Vinegar — Concluded.

Amounts brought forward		$1,316 15	$1,600 00
Drugs, Walter A. Claflin		8 25	
Examination of sources of ice supply, F. A. Dunbar		55 22	
Instruments and supplies, Franklin Educational Co.		62 37	
Printing and stationery:—			
Cambridge Co-operative Society	$4 57		
James H. Cox	26 50		
Stationery Department	15 20		
		46 27	
Services, collecting samples, W. Frank Smith		49 10	
Sundries		9 78	
Travelling expenses		39 10	
Total			1,586 24
Balance unexpended			$13 76

Inspection of Provisions.

Appropriation			$800 00
EXPENDED.			
For Salary of			
Inspector of Provisions, Dr. C. E. Hadcock		$700 00	
Drugs, chemicals, etc:—			
Walter A. Claflin	$46 50		
John C. Sylvia	12 00		
Henry Thayer	22 90		
Sundry persons	3 20		
		84 60	
Horse food, A. G. Dore & Co.		2 00	
Oil, Standard Oil Co.		7 00	
Total			793 60
Balance unexpended			$6 40

Inspection of Wires.

Appropriation			$12,000 00
RECEIVED.			
For labor and materials		$266 88	
EXPENDED.			
For Salaries of			
Inspector of Wires, Chas. F. Hopewell	$1,000 00		
Clerk, Lillian W. Hyde	312 00		
Assistants: —			
Francis Axtman	276 42		
Edw. Backus	423 42		
Fred Backus	148 00		
G. J. Blaisdell	1,169 75		
D. J. Campbell	624 00		
John W. Jefferson	108 00		
Arthur Jewell	174 00		
Henry Joselyn	87 50		
R. McDonald	75 00		
John Newcomb	120 00		
Wm. C. Pierce	1,014 00		
J. W. Reid	88 75		
Thos. R. Shaw	491 00		
O. L. Whitney	595 00		
		$6,706 84	
Apparatus and electric supplies, etc.—			
Beacon Lamp Co.	$20 60		
J. A. and W. Bird & Co.	87 35		
Boston Electric Co.	6 62		
J. H. Bunnell & Co.	50 00		
Edes Mfg. Co.	139 32		
Electric Gas Lighting Co.	237 83		
Jennie F. Ellis	15 00		
Thos. W. Gleeson	7 00		
Holtzer-Cabot Elec. Co.	134 90		
C. S. Knowles	90 00		
Lord Electric Co.	26 40		
National Glass Co.	5 75		
N. E. Electrical Supply Co.	6 00		
N. E. Gamewell Co.	19 95		
Pettingell-Andrews Co.	159 18		
Amounts carried forward	$1,005 90	$6,706 84	$12,000 00

Inspection of Wires — Continued.

Amounts brought forward . .	$1,005 90	$6,706 84	$12,000 00
F. L. Sawyer & Co. . .	58 33		
Simple Electrical Co. . .	162 24		
Standard Brass Co. . .	8 18		
Geo. M. Stevens . . .	115 70		
U. S. Fire and Police Tel. Co.	954 75		
Weeks & Potter	6 50		
Sundry Persons	25 78		
		2,337 38	
Bedding:—			
Jordan, Marsh & Co. . .	$6 00		
Worcester Bros.	14 12		
		20 12	
Bells, Blake Bell Co.		754 40	
Carpentry and mill work, Ira G. Hersey .		110 07	
Car tickets, W. E. Street Railway Co. .		80 00	
Desk telephone, Murdock & Taber . . .		12 00	
Expressage:—			
Hatch & Co.	$22 46		
Sundry Persons	10 03		
		32 49	
Furniture, etc., Worcester Bros. . . .		6 26	
Hardware, tools and supplies:—			
Brock Bros.	$9 33		
Burditt & Bynner . . .	96 12		
Chandler & Farquhar . .	8 35		
J. D. Jewett & Co. . . .	14 71		
Sundry Persons	11 82		
A. J. Wilkinson & Co. .	44 52		
		184 85	
Harness, horse clothing:—			
G. A. Morse	$35 00		
F. E. Newgent & Co. . .	6 90		
Sundry Persons	7 09		
		48 99	
Horse board:—			
Irving Blake	$175 00		
Fire Department . . .	104 00		
F. E. Newgent & Co. . .	300 00		
		579 00	
Amounts carried forward		$10,872 40	$12,000 00

Inspection of Wires — Concluded.

Amounts brought forward		$10,872 40	$12,000 00
Horse-shoeing, Wm. Balmer		17 75	
Labor and stock, building line, City of Somerville		22 12	
Ladders and repairs, C. W. H. Moulton & Co.		5 50	
Lighting:—			
Camb. Elec. Light Co.	$54 24		
Labor and wiring	284 58		
		338 82	
Oil:—			
Standard Oil Co.	$18 25		
D. C. Stull	2 50		
		20 75	
Paper, Edw. H. Haskell		11 51	
Printing, Cambridge Co-operative Society		5 01	
Raising bell, W. H. Norris		5 00	
Slate slabs, Bowker, Torrey & Co.		15 00	
Stationery:—			
Cotton & Gould	$17 55		
Stationery Department	8 80		
		26 35	
Sundries		22 48	
Telephone rent and tolls		270 60	
Use of engine, etc., Thompson Elec. Welding Co.		200 00	
Wagon repairs:—			
Chapman Carriage Co.	87 50		
Chas. Waugh & Co.	26 00		
		113 50	
Washing, Fannie E. Blaisdell		52 95	
Total			11,999 74
Balance unexpended			$ 26

Interest.

Appropriation	$131,665 00
Transferred from Contingent Fund	434 07
	$132,099 07
Amount carried forward	$132,099 07

Interest — Concluded.

Amount brought forward		$132.099 07
RECEIVED.		
For Accrued Interest on Loans	$3,037 91	
Interest on Deposits	2,601 34	
Interest on Taxes	5,041 76	
Premium on Loans	47,053 20	
	$57,734 21	
EXPENDED.		
For Interest on		
Contingent Loan	$12,000 00	
Daniel White Charity	300 00	
Dowse Institute Fund	600 00	
Funded Loan	106,255 00	
Sanders Temperance Fund	600 00	
Temporary Loans	12.344 07	
Total		$132.099 07

Lamp Department.

Appropriation			$71,000 00
Transferred to Contingent Fund			3.500 00
			$67.500 00
RECEIVED.			
For Gas Lantern	$1 00		
Lamp posts	202 00		
		$303 00	
EXPENDED.			
For Salaries of: —			
Supt. Chas. F. Hopewell	$1,000 00		
Lamplighters	3,640 00		
		4640 00	
Apparatus and electrical supplies: —			
General Electric Co.	$21 00		
Pettingell-Andrews Co.	4 00		
Weston Elec. Instrument Co.	85 00		
		110 00	
Atlas, G. W. Bromley & Co.		25 00	
Amounts carried forward		$4,775 00	$67.500 00

Lamp Department — Concluded.

Amounts brought forward		$4,775 00	$67,500 00
For Carriage hire:—			
Joseph LeFarve	$7 00		
James McGovern	12 00		
H. K. Parsons	5 00		
		24 00	
Glass, etc., Burditt & Bynner		10 62	
Horse Board, Irving Blake.		125 00	
Horse clothing, harness and repairs: —			
G. A. Morse	$4 00		
F. E. Newgent & Co.	20 00		
Ordway, Kimball & Loring	20 25		
		44 25	
Horse-shoeing, William Balmer		53 00	
Lamp chimneys and burners, Jones, McDuffie & Stratton		47 65	
Lighting streets: —			
Cambridge Elec. Light Co.:—			
Arc	$48,386 70		
Incandescent	7,211 37		
Labor, changing lamps	39 00		
Cambridge Gas Light Co.	6,242 75		
Repairs	5 00		
Town of Belmont	48 00		
		61,932 82	
Oil:—			
Geo. M. Rogers Est.	$17 48		
Standard Oil Co.	97 70		
F. A. White	6 65		
		121 83	
Stationery and printing: —			
Cotton & Gould	$28 35		
Stationery Department	6 33		
Sundry Persons	8 25		
		42 93	
Sundries		12 21	
Suppers, Mansion House		7 00	
Wagon (exchange) Chas. Waugh & Co.		129 00	
Total			$67,325 31
Balance unexpended			$174 69

Land Damages.

Appropriation			$89,868 03
Additional Appropriation			15,099 90
			$104,967 93
EXPENDED.			
For Boylston Street: —			
Mary A. Delaney	$270 00		
Wm. J. Edwards.	685 00		
Fannie A. Elliott	1,000 00		
James Elliott	2,800 00		
Ellen Kramer	923 43		
John McLean	1,064 32		
Devisees of Wm. Read	7,663 63		
Fredk. W. Rogers, Trustee	250 00		
		$14,656 38	
Charles and Vine Streets:—			
Alice M. Campbell	$2,300 00		
Patrick Corcoran	647 80		
Charles McMahon	3,295 45		
Edward McSweeney	2,000 00		
Ellen J. Murray	2,500 00		
		10,743 25	
Davenport Street, Warren Cutter		200 00	
Eliot Street:—			
Eliza J. Ferris	$154 00		
Jas. Edward Stewart, *et al*	1,834 00		
		1,988 00	
Huron Avenue:—			
Edwin Dresser	$24 25		
Elizabeth O'Brien, *et al.*	6,375 74		
Hannah Walsh	400 00		
		6,799 99	
Magazine Street, T. C. Raymond, *et al.*—		500 00	
Mt. Auburn Street:—			
Areanna Tufts	$21 00		
L. Roger Wentworth, Trustee	277 78		
		298 78	
Seventh Street:—			
Timothy Desmond, Jr.	$6,000 00		
Margaret McElroy	4,001 50		
		10,001 50	
Wyeth Street, R. J. Melledge, Trustee		354 00	
Amounts carried forward		$45,541 90	$104,967 93

Land Damages — Concluded.

Amounts brought forward		$45,541 90	$104,967 93
For Appraisals:—			
W. Fillmore	$60 00		
L. D. Garfield	60 00		
L. M. Hannum	105 00		
		225 00	
Examination of titles, Wm. V. Thompson		582 65	
Total			46,349 55
Balance unexpended			$58,618 38

Law Department.

Appropriation			$5,200 00
RECEIVED.			
For Services of City Solicitor to Water Works		$2,100 00	
EXPENDED.			
For Salary of City Solicitor, G. A. A. Pevey		$3,500 00	
Advertising, Journal Newspaper Co.		5 76	
Appraisal, M. L. Walton		15 00	
Battery, Otis Clapp & Son		10 00	
Car tickets, W. E. Street Railway Co.		125 00	
Cash expended, G. A. A. Pevey		494 45	
Examination of Laws, George E. Howe		15 00	
Examination of Records, Frank Y. Wellington		17 00	
Photographs, F. C. Garth		122 00	
Services:—			
Augustine J. Daly	$10 00		
Dr. G. L. Walton	50 00		
Walter C. Wardwell	101 25		
		161 25	
Stationery, printing:—			
T. H. Ball	$40 43		
George E. Crosby & Co.	7 00		
L. H. Lane	51 00		
Stationery Department	34 20		
		132 63	
Amounts carried forward		$4,598 09	$5,200 00

Law Department — Concluded.

Amounts brought forward		$4,598 09	$5,200 00
For Sundries		6 50	
Thermometers, Cotton & Gould		12 00	
Typewriting:—			
George B. French	$552 25		
Saidee M. Swift	28 60		
		580 85	
Total			5,197 44
Balance unexpended			$2 56

Overseers of the Poor (Almshouse Department.)

Appropriation			$20,000 00
Transferred from Contingent Fund			169 28
			$20,169 28
RECEIVED.			
For Board of Inmates		$834 52	
Barrels		33 74	
Grease and bones		93 81	
Old materials		6 96	
Proceeds of chair shop		61 25	
Teaming		5 00	
Use of telephone		3 20	
Weighing fees		4 31	
		$1,042 79	
EXPENDED.			
For Salaries of			
Supt. M. L. Eldridge	$1,500 00		
Asst. Supt. Samuel F. Norris	784 29		
Sundry House Officials	4,383 98		
Organist	32 00		
		6,700 27	
Advertising:—			
Boston Herald Co.	6 75		
Cambridge Chronicle Co.	6 25		
		13 00	
Amounts carried forward		$6,713 27	$20,169 28

Overseers of the Poor (**Almshouse Department**) — Continued.

Amounts brought forward		$6,713 27	$20,169 28
For Ambulance fees:—			
Ambulance department	$12 00		
Charles W. Dailey	17 00		
		29 00	
Board, Boston Children's Aid Society	$16 53		
Massachusetts General Hospital	40 00		
Cambridge Hospital	49 75		
		106 28	
Boots, shoes and repairs:—			
F. Fischer	$6 15		
Mass. Boot and Shoe Co.	66 20		
Wm. Myers	75 20		
C. Henry Sherburne	10 00		
A. G. Swett & Co.	26 30		
		183 85	
Burials, H. D. Litchfield		37 90	
Burial Fees, Cemetery dept.		10 00	
Car tickets, W. E. St. Railway Co.		90 00	
Cash expended, M. L. Eldridge		398 31	
Clothing, bedding:—			
Brown, Durrell & Co..	$364 90		
Dyer, Rice & Co.	16 00		
Jordan, Marsh & Co.	542 61		
L. Morse & Co.	54 06		
Smith, Carter, Connor & Co.	52 50		
John O. Smith & Co.	254 20		
		1,284 27	
Dials and clock repairs, Hersey Mfg. Co.		12 30	
Disinfectants:—			
R. S. Downe Co.	$5 00		
C. W. Lerned & Co.	10 40		
Sulpho Napthol Co.	14 00		
		29 40	
Ensign, Irving W. Wheeler & Co.		7 00	
Expressage, Bancroft's express		19 60	
Flag-staff, H. Pigeon & Sons		12 00	
Amounts carried forward		$8,933 18	$20,169 28

Overseers of the Poor (Almshouse Department)—Continued.

Amounts brought forward		$8,933 18	$20,169 28
For Fuel, Baker, Hunnewell & Co.		1,133 09	
Weighing coal, H. W. Brooks		11 00	
Furniture furnishings, etc.:—			
G. W. Bent & Co.	$10 50		
Greenwood & Co.	26 13		
Jordan, Marsh & Co.	56 41		
Mellish, Byfield & Co.	63 00		
John H. Pray, Sons & Co.	10 00		
Furniture, furnishings, etc.:—			
George W. Smith	$7 65		
Worcester Bros.	15 00		
		188 69	
Gas, Cambridge Gas Light Co.		237 76	
Hardware, tools and supplies:—			
Boyd, Leeds & Co.	$8 65		
Burditt & Bynner	78 80		
D. W. Gage	13 40		
Greene & Co.	6 35		
Mount Hope Iron Co.	28 50		
Walker & Pratt Mfg. Co.	13 70		
F. A. White	21 72		
		171 12	
Heating apparatus repairs, Walker & Pratt Mfg. Co.		8 75	
House repairs:—			
Batteries and key-stations, Holtzer-Cabot Electric Co.	$6 82		
Carpentry, W. H. Norris	887 83		
Mason work, Wm. J. Bellis	25 00		
Painting, J. H. & J. P. Thayer & Co.	116 45		
Plumbing, John H. Stevens & Co.	8 51		
Windows and frames, Cutter & Parker	41 45		
		1,086 06	
Ice, H. D. & W. S. Durgin		58 40	
Amounts carried forward		$11,828 05	$20,169 28

Overseers of the Poor (Almshouse Department) — Continued.

Amounts brought forward		$11,828 05	$20,169 28
For Labor:—			
John H. Haley	$52 90		
Patrick Harney	45 36		
Michael Martin	48 30		
James Prendable . . .	39 00		
		185 56	
Labor and materials, Inspection of Wires		14 85	
Lumber, lime and cement:—			
Geo. W. Gale Lumber Co.	$368 70		
F. L. Sawyer & Co. . .	73 57		
Wm. H. Wood & Co. . .	41 55		
		483 82	
Medicines, drugs:—			
Gilman Bros.	$259 53		
Chas. S. Lombard . . .	11 15		
		270 68	
Medical instruments and surgical apparatus:			
Leach & Greene	$8 00		
W. H. Phelps & Co. . .	7 50		
		15 50	
Music, Oliver Ditson Co.		9 60	
Newspapers, Jas. W. Hunnewell . . .		12 00	
Nurses:—			
Minnie L. Hicks	$10 00		
Ella B. Pool	53 56		
		63 56	
Oil:—			
Kimball, Freed & Co. . .	$5 00		
W. A. Wood & Co. . .	16 51		
		21 51	
Pipe and fittings:—			
D. W. Lewis	$11 51		
Walworth Mfg. Co. . .	81 71		
		93 22	
Professional services:—			
Paul F. Ela, M. D. . . .	$6 00		
J. E. Somers, M. D. . .	5 00		
		11 00	
Rubber Goods, C. S. Knowles		27 00	
Savogran, India Alkali Works		27 39	
Soap, Chas. R. Teele		95 00	
Amounts carried forward		$13,158 74	$20,169 28

Overseers of the Poor (Almshouse Department) — Continued.

Amounts brought forward		$13,158 74	$20,169 28
For Stationery, F. W. Barry, Beale & Co. .		14 70	
Subsistence Supplies: —			
Armour & Co.	$120 00		
Richard Bean	12 00		
Boyd, Leeds & Co. . . .	407 30		
Cambridge Baking Co. .	38 12		
Cheney, Upham & Co . .	28 45		
George H. Chessman & Co.	13 85		
Cobb, Bates & Yerxa . .	201 19		
Clark Bros.	63 95		
George Close	12 90		
Cushing Process Co. . .	5 80		
Chas. L. Davenport . .	22 10		
L. M. Dolloff	398 25		
R. S. Edwards & Co. . .	245 00		
David Ellis & Co. . . .	47 52		
Hathaway & Gould . . .	807 00		
J. A. Holmes & Co. . .	30 80		
M. R. Jones	9 15		
Lyman L. Kimball & Co.	163 80		
A. J. Lovell & Co. . . .	69 86		
A. J. Littlefield & Co. . .	635 46		
McPherson Bros. . . .	117 82		
Chas.E. Moody	94 02		
The Maltine Co.	15 00		
N. Y. Biscuit Co. . . .	50 47		
Fred D. Norton	337 41		
George G. Parker . . .	31 84		
A. G. Patch & Co. . . .	5 25		
Public Market and Packing Co.	972 64		
F. Putnam & Co. . . .	128 92		
George E.Richardson & Co.	12 51		
Sands, Taylor & Wood .	307 50		
S. S. Sleeper & Co. . . .	11 70		
Small & Jones	88 38		
Howard W. Spurr & Co.	165 09		
Swan & Newton & Co. .	47 87		
L. A. Treat	106 40		
Amounts carried forward . .	$5,825 32	$13,173 44	$20,169 28

Overseers of the Poor (Almshouse Department) — Concluded.

Amounts brought forward	$5,825 32	$13,173 44	$20,169 28
Utley & Rogers	219 59		
Woodlawn Dairy Co.	77 22		
G. P. Worthley	409 20		
		6,531 33	
Sundries		46 34	
Tax on Almshouse Land, City of Somerville		332 64	
Telephone rent and tolls, N. E. Telephone		78 60	
Toys, B. H. Landman		6 93	
Total			$20,169 28

Overseers of the Poor (Farm and Ledge.)

Appropriation			$10,000 00
Transferred from Contingent Fund			394 33
			$10,394 33

RECEIVED.

For Farm produce		$5,623 62	
Stone		7,639 48	
		$13,263 10	

EXPENDED.

Farm Department.

For Labor on Farm:—			
Farmer, James Welch	$782 50		
Employees, as per pay-roll	2,416 89		
		3,199 39	
Bricks, Parry Bros. & Co.		13 60	
Cows:—			
Ephraim Bragdon	$120 00		
Jeremiah Sullivan	14 00		
		134 00	
Glass: Boston Plate and Window Glass Co.		7 05	
Hot-bed sashes:—			
Cutter & Parker	$190 00		
David Puffer Est.	59 60		
		249 60	
Hay, Grain:—			
Clark Bros.	$240 34		
S. C. Frost	29 30		
		269 64	
Amounts carried forward		$3,873 28	$10,394 33

Overseers of the Poor (Farm and Ledge) — Continued.

Amounts brought forward		$3,873 28	$10,394 33
For Lathyarn, M. F. Whiton & Co.		8 91	
Labor:—			
James Chenery	$29 54		
John Flynn	20 00		
John Kenney	120 00		
Thomas O'Hara	10 00		
		179 54	
Lumber, George W. Gale Lumber Co.		325 30	
Manure:—			
John J. Brassil	$62 37		
Timothy A. Callaghan	20 39		
James J. Connell	23 32		
Thos. Cosgrove	11 44		
Elizabeth Cox	36 80		
John T. Culhane	22 38		
E. Fredrekson	98 04		
S. Gustafson	21 58		
Thos. Garrity	33 73		
Jeremiah Keefe	12 09		
Timothy Keefe	59 62		
Thomas Maher	18 98		
David Landergan	11 25		
Elizabeth Martell	61 86		
N. J. McConologue	107 67		
J. McCrehan	36 44		
Chas. McKee	10 05		
M. Murphy	17 79		
Thos. O'Hara	41 02		
John Quinn	33 70		
John M. Riley	11 72		
		752 24	
Market Expenses, M. L. Eldridge		33 85	
Pigs, John Daily		85 00	
Plants, seeds:—			
Crosby Bros.	$40 00		
Peter Henderson & Co.	15 75		
John Lyons	14 00		
Schlegel & Fottler	103 59		
Whiting Nursery Co.	16 50		
		189 84	
Amounts carried forward		$5,447 96	$10,394 33

Overseers of the Poor (Farm and Ledge) — Concluded.

Amounts brought forward		$5,447 96	$10,394 33
For Pullets, T. G. Whiting		23 00	
Rent of market stand, Mercantile Wharf Corporation		40 00	
Tools, Jos. Breck & Son		17 99	
Sundries		18 57	
Use of blocks, etc., O. S. Teel		10 00	
Farm Total		$5,557 52	
Ledge Department.			
For Labor on Ledge,			
Foreman, Michael Callahan	$785 00		
Employees	3,240 00		
		4,025 00	
Fuel, Baker, Hunnewell Co.		26 60	
Hardware, Dodge, Haley & Co.		11 76	
Pipe and fittings, Walworth Mfg. Co.		23 49	
Powder:—			
Hecla Powder Co.	$76 50		
George H. Sampson	221 52		
		298 02	
Tools and repairs:—			
R. H. Clark	$64 70		
W. A. Easter	75 55		
Ingersoll, Sergeant Drill Co.	44 29		
Knowles Steam Pump Works	80 00		
John McMahon	187 40		
		451 94	
Ledge Total		$4,836 81	
Total			$10,394 33

Overseers of the Poor (House Offal).

Appropriation		$25,000 00
Transferred from Contingent Fund		1,284 51
		$26,284 51
RECEIVED.		
For Sale of House Offal	$9,155 35	
Amount carried forward		$26,284 51

Overseers of the Poor (House Offal) — Continued.

Amount brought forward			$26,284 51
EXPENDED.			
For Labor as per pay-roll		21,677 00	
Combs and sponge, Greenwood & Co.		8 50	
Hardware, tools and supplies:—			
Dodge, Haley & Co.	$23 70		
F. A White	20 75		
		$44 45	
Harness and repairs, horse clothing:—			
George Clark	$5 00		
Dyer, Rice & Co.	22 00		
Jos. A. Ryan	113 15		
Sartwell, Heinhold & Humphrey	14 00		
		154 15	
Harness Oil, John H. Fuller		22 00	
Hay, grain:—			
Otis S. Brown & Co.	$460 83		
Clark Bros.	642 66		
A. Fitch & Co.	546 66		
Hosmer Robinson & Co.	240 39		
Leavitt, Sanborn & Co.	295 58		
Lord & Webster	74 62		
George G. Wright	605 00		
		2,865 74	
Horse, Welch & Hall		210 00	
Horse-shoeing:—			
Wm. Bell	$435 85		
Gerry & Rufer	12 90		
John McMahon	110 63		
		559 38	
Labor:—			
Francis E. Dudley	$10 00		
Thos. C. McNamara	23 50		
John Murray	9 50		
Hugh Toomey	120 00		
		163 00	
Lumber, cement:—			
John S. Clary	$9 35		
F. L. Sawyer & Co.	6 65		
		16 00	
Amounts carried forward		$25,720 22	$26,284 51

Overseers of the Poor (House Offal) — Concluded.

Amounts brought forward		$25,720 22	$26,284 51
For Paint, I. H. Wiley & Co.		16 25	
Pung, Albert L. Teele		30 00	
Repairing wagons:—			
W. A. Easter.	$83 60		
J. E. Fitzgerald	111 95		
Jas. A. Henderson & Son	136 11		
		331 66	
Sundries		6 38	
Wagon, J. Miller		175 00	
Wheelbarrow, Albert L. Teele		5 00	
Total			$26,284 51

Outside Aid Department.

Appropriation	$45,000 00
Transferred from Contingent Fund	2,031 69
	$47,031 69

RECEIVED.

For aid to, board, and burial of sundry paupers		$5,757 62	

EXPENDED.

For Salaries of			
Secretary, D. P. Muzzey	$1,500 00		
Visitor, V. Danforth	1,458 33		
Clerk, Addie M. Benson	550 00		
		3,508 33	
Aid to sundry persons		4,311 60	
By cities and towns:—			
City of Beverly	$7 50		
Boston	1,946 74		
Cambridge, State Aid	102 01		
Everett	32 25		
Fall River	14 50		
Haverhill	89 50		
Lynn	9 85		
Malden	33 75		
Newton	26 00		
Amounts carried forward	$2,262 10	$7,819 93	$47,031 69

Outside Aid Department — Continued.

Amounts brought forward . .	$2,262 10	$7,819 93	$47,031 69
Salem	8 00		
Somerville	286 03		
Taunton	21 50		
Waltham	126 60		
Woburn	100 14		
Worcester	50 74		
Town of Arlington . .	16 53		
Belmont	13 90		
Canton	60 36		
Cohasset	58 18		
Gardner	65 16		
Hudson	23 00		
Hyde Park	6 00		
Norwood	47 50		
Peabody	150 00		
Stoughton	296 40		
Wilbraham	5 50		
		3,597 64	
Ambulance fees:—			
Ambulance Department .	$99 00		
Charles W. Dailey . . .	30 00		
		129 00	
Binding and mounting voting lists:—			
E. W. Bettinson	$6 00		
J. H. H. McNamee . . .	71 91		
		77 91	
Board and care:—			
At Boston Children's Aid Society	$967 02		
Cambridge Hospital . .	818 02		
Carney Hospital . . .	327 44		
Clarke School for the Deaf	22 69		
Danvers Lunatic Hospital	1,704 38		
Essex Co. Truant School	130 00		
Hospital Cottages for Children	169 92		
Mass. General Hospital	63 50		
Amounts carried forward .	$4,202 97	$11,624 48	$47,031 69

Outside Aid Department—Continued.

Amounts brought forward . .	$4,202 97	$11,624 48	$47,031 69
For Board and care:—			
At Mass. School for Feeble Minded	1,629 51		
Mass. Hospital for Dipsomaniacs	423 97		
Medfield Insane Asylum	1,242 50		
Mrs. Almond Boyden's .	76 14		
Mrs. Hugh Feloney's .	18 00		
Mrs. M. A. French's .	146 40		
Mrs. F. H. Farmer's .	103 06		
Miss O. S. C. Haskins' .	169 92		
Mrs. V. B. Moody's .	130 00		
Mrs. Moses Pepper's .	20 00		
Mrs. George H. Sweet's	84 96		
Northampton Lunatic Hospital	42 71		
Taunton Lunatic Hospital	487 54		
A. L. Towne's . . .	79 60		
Westboro Insane Hospital	2,694 62		
Worcester Insane Asylum	2,718 88		
Worcester Lunatic Hospital	9,230 38		
By Commonwealth of Massachusetts:—			
At Danvers Lunatic Hospital	129 06		
Mass. Hospital for Dipsomaniacs	370 98		
State Almshouse . . .	1,556 96		
State Farm	743 20		
Taunton Lunatic Hospital	39 92		
Westboro' Insane Hospital	222 39		
Worcester Lunatic Hospital	1,158 88		
		27,722 55	
Amounts carried forward		$39,347 03	$47,031 69

Outside Aid Department — Continued.

Amounts brought forward		$39,347 03	$47,031 69
For Burial fees, Cemetery Department		178 00	
Burials, H. D. Litchfield		241 15	
Burial expenses, Mrs. Amelia Nelligan		11 15	
Can, A. M. Robbins		6 00	
Carpentry, W. H. Norris		16 77	
Carriage hire, Whiting & Smith		17 00	
Car tickets, W. E. St. Railway Co.		300 00	
Cash expended:—			
Wm. A. Bradford	$47 55		
V. Danforth	89 88		
D. P. Muzzey	19 48		
		156 91	
Clothing:—			
Jordan Marsh & Co.	$49 14		
L. Morse & Co.	14 60		
		63 74	
Cleaning carpet, Wm. S. Swett		6 44	
Chute, scales, etc., Baker, Hunnewell Co.		28 39	
Directories:—			
W. A. Greenough & Co.	$23 00		
Sampson, Murdock & Co.	5 00		
		28 00	
Executions of Court:—			
City of Boston	$291 97		
Com. of Mass. Treas.	1,629 48		
		1,921 45	
Fuel, Baker, Hunnewell Co.		1,199 57	
Weighing, H. W. Brooks		11 00	
Ice, Fresh Pond Ice Co.		10 52	
Lighting:—			
Cambridge Elec. Light Co.	$19 73		
Cambridge Gas Light Co.	44 87		
		64 60	
Medicines, drugs:—			
A. R. Bayley & Co.	$7 74		
Otis Clapp & Son	19 15		
Chas. E. Coombs	18 05		
W. H. Frazier	8 55		
Amounts carried forward	$53 49	$43,607 72	$47,031 69

Outside Aid Department — Continued.

Amounts brought forward .	$53 49	$43,607 72	$47,031 69
Gilman Bros.	330 98		
E. C. Gove	16 02		
The G. F. Harvey Co. . .	4 80		
Wm. B. Hunt & Co. . .	6 62		
Maurice O'Donnell . . .	7 74		
Reeves Bros.	8 33		
Reycroft's Pharmacies . .	105 12		
Henry Thayer & Co. . .	17 75		
		550 85	
Medical Instruments and Surgical Apparatus:—			
George C. Gardner . . .	$7 70		
W. H. Phelps & Co. . .	26 00		
		33 70	
Paper:—			
John Carter & Co. . . .	$6 62		
Wm. H. Claflin & Co. .	18 19		
		24 81	
Painting, George H. Hughes		8 50	
Professional services:—			
Paul F. Ela, M. D. . . .	$65 75		
H. E. Knowlton, M. D. .	23 00		
Wm. D. Swan, M. D. .	5 00		
		93 75	
Rugs, Jordan, Marsh & Co.		22 50	
Stationery and printing:—			
F. W. Barry, Beale & Co.	$81 70		
Cambridge Co-operative Society	61 89		
Cotton & Gould	47 75		
John H. Ford	138 79		
Lewis J. Hewitt . . .	7 00		
George H. Richter & Co. .	4 56		
F. S. Webster Co. . . .	7 18		
		348 87	
Subsistence supplies:—			
Clark Bros.	$23 35		
Cushing Process Co. . .	13 10		
Daniel H. Dean	138 25		
R. S. Edwards & Co. . .	350 99		
Amounts carried forward . .	$525 69	$44,690 70	$47,031 69

Outside Aid Department — Concluded.

Amounts brought forward.	$525 69	$44,690 70	$47,031 69
J. A. Holmes & Co.	801 39		
H. N. Hovey & Co.	293 44		
The Maltine Co.	15 00		
McPherson Bros.	110 32		
Chas. E. Moody & Co.	247 93		
Sands, Taylor & Wood	97 50		
E. White	5 12		
		2,096 39	
Sundries		56 50	
Telephone rent and tolls		133 10	
Teaming, P. Biggin		5 00	
Wagon repairs, Jas. A. Henderson & Son		50 00	
Total			$47,031 69

Overseers of the Poor (Salary of Assistant City Physician).

Appropriation		$1,500 00

EXPENDED

For Salary of Assistant City Physician	$1, 500 00	
		$1,500 00

Park Department (Construction.)

Appropriation			$260,063 00

RECEIVED.

For Grass	$3 00	
Insurance	360 00	
Rebate on insurance	4 15	
Rent	2,181 03	
Sale of buildings	1,000 00	
	$3,548 18	

EXPENDED.

For Salaries of			
Superintendent, Geo. R. Cook	$2,000 00		
Foremen:—			
James Doherty	183 34		
J. F. Donnelly	508 50		
Amounts carried forward	$2,691 84		$260,063 00

Park Department (Construction) — Continued.

Amounts brought forward	$2,691 84		$260,063 00
J. H. McCarthy	996 00		
M. L. Wixon	843 00		
Tallyman, Geo. U. Young	780 00		
Engineers	2,939 93		
Clerks:—			
Elizabeth A. McGinnis	624 00		
John R. Wilson	780 00		
Labor, as per pay-roll	20,733 25		
		$30,388 02	
Advertising:—			
Boston Daily Advertiser	$18 13		
Boston Herald Co.	14 88		
Camb. Chronicle Co.	5 22		
Globe Newspaper Co.	7 00		
Sundry Persons	6 75		
		51 98	
Base and grates, Concord Foundry Co.		21 00	
Binding, David Farquhar		49 00	
Boat repairs, R. Jope		6 50	
Boxes, Geo. G. Page Box Co.		13 50	
Bricks:—			
D. W. De Rosay	$108 75		
H. Gore & Co.	522 29		
Ham & Carter	34 20		
M. W. Sands	1,486 88		
		2,152 12	
Carpentry:—			
C. S. Newcomb	$48 95		
W. H. Norris	2 96		
John Quin	671 82		
		723 73	
Carriage hire:—			
Chas. S. Brown Co.	$12 00		
M. J. Shea	5 00		
Whiting & Smith	23 00		
		40 00	
Car tickets, W. E. Street Railway Co.		325 00	
Cash expended:—			
Geo. R. Cook	$ 75		
H. E. Whiting	6 67		
		7 42	
Amounts carried forward		$33,778 27	$260,063 00

Park Department (Construction) — Continued.

Amounts brought forward		$33,778 27	$260,063 00
For Catch basin frames and covers, Mechanics Iron Foundry		16 08	
Catch basin traps, Boston Double Catch Basin, Sewer and House Trap Co.		17 20	
Cement:—			
W. G. Nash	$27 00		
Waldo Bros.	45 10		
		72 10	
Dinners, Colonial Club		21 35	
Drain work, Sam'l McCulloch		130 72	
Drawing plans, Chas. B. Parker		25 00	
Ensigns, Irving W. Wheeler & Co.		22 40	
Examination of Titles:—			
William V. Thompson	$63 55		
Fred'k H. Viaux	100 00		
		163 55	
Expressage		5 80	
Fences:—			
Chelmsford Foundry Co.	$102 00		
Cleveland Wrought Iron Fence Co.	90 00		
		192 00	
Fertilizer, Munroe, Lalor & Co.		225 00	
Filling, loam, etc.,		39,924 19	
Flag-staff repairs:—			
Boston Spar Co.	$155 00		
David Cass	66 40		
		221 40	
Freight		19 25	
Fuel:—			
Baker, Hunnewell Co.	$176 12		
Coleman Bros.	16 00		
Robert Fawcett	20 15		
Geo. Richardson	3 15		
		215 42	
Furniture, Irving & Casson		110 00	
Gravel and sand:—			
Chas. Linehan	$14 40		
W. B. Mullen	13 56		
		27 96	
Amounts carried forward		$75,187 69	$260,063 00

Park Department (Construction)—Continued.

Amounts brought forward		$75,187 69	$260,063 00
For Hardware, tools and repairs, and supplies:—			
Mark Alexander	$11 85		
Ames Plow Co.	256 19		
Baldwin, Robbins & Co. .	10 80		
Barbour, Stockwell Co. .	26 25		
Buff & Berger	217 00		
Burditt & Bynner . . .	106 38		
Frost & Adams	15 00		
J. A. Holmes & Co. . .	5 00		
Chas. C. Hutchinson . .	5 00		
M. D. Jones & Co. . . .	18 00		
James Maitland	34 20		
Miller & Shaw	12 13		
Munroe, Lalor & Co . .	17 00		
John Quin	43 00		
Tobias & Wall	5 00		
Watts Bros.	5 00		
F. A. White	29 75		
A. J. Wilkinson & Co. .	8 96		
		$826 51	
Harness and repairs:—			
Hugh McCaffrey . . .	$4 00		
Whiting & Smith . . .	9 25		
		13 25	
Heating apparatus, Brock Bros.		6 20	
Hogsheads, D. Moloney		5 25	
Horse board, Whiting & Smith		300 00	
Horse-shoeing, G. W. Lowd		43 50	
Index case, cards, etc., Library Bureau .		54 25	
Insurance, T. H. Raymond		360 00	
Ladder, C. W. H. Moulton & Co. . . .		10 50	
Land:—			
Cambridge Gas Light Co.	12,333 84		
Horace T. & Wm. F. Colby	4,500 00		
Robert Cowen	15,064 70		
James Eliot	6,800 00		
Heirs of Geo. Prentiss .	600 00		
Heirs of Emmons Raymond	40,000 00		
		79,298 54	
Amounts carried forward		$156,105 69	$260,063 00

Park Department (Construction) — Continued.

Amounts brought forward		$156,105 69	$260,063 00
For Lawn seats, Ames Plow Co.		353 40	
Lumber:—			
Geo. W. Gale Lumber Co.	$31 23		
E. D. Sawyer & Co.	326 11		
Wm. H. Wood & Co.	76 87		
		434 21	
Maps, etc., Geo. H. Walker		8 00	
Piles:—			
Wm. L. Miller	$17 25		
John T. Scully & Bro.	84 66		
		101 91	
Pipe and cement:—			
Greene & Co.	$249 57		
D. W. Lewis	156 83		
		406 40	
Plans:—			
C. Herbert McClare	$75 00		
Olmstead, Olmstead & Eliot	1,302 93		
		1,377 93	
Pump, hose, etc., Edson Mfg. Co.		45 00	
Removal of piles, wreck, etc., Wm. L. Miller		325 00	
Rent, The Prospect Union		140 00	
Repairing plans, Suffolk Engraving Co.		7 50	
Reporting, Roger & Jones		236 25	
Retaining fee, J. Morris Meredith		100 00	
Rubber boots, W. T. Roop & Co.		10 80	
Rubber goods and hose:—			
Boston Woven Hose Co.	$188 88		
Burditt & Bynner	30 00		
Cable Rubber Co.	21 82		
		240 70	
Sea wall, Thos. A. Rowe		14,692 35	
Services of Experts:—			
Geo. C. Appleton	$100 00		
John C. Cobb	100 00		
Ellis & Melledge	100 00		
Jas. M. Hilton	50 00		
Amounts carried forward	$350 00	$174,585 14	$260,063 00

Park Department (Construction) — Continued.

Amounts brought forward	$350 00	$174,585 14	$260,063 00
Thos. Hills	100 00		
Robt. M. Morse	1,202 78		
T. H. Raymond	175 00		
John T. Scully	100 00		
Fred'k H. Viaux	100 00		
Henry W. Wilson	100 00		
		2,127 78	
Shelter at Cambridge Field:—			
Advertising, Cambridge Chronicle Co.	$4 60		
Asbestos coverings for steam pipes, H.W. Johns Mfg. Co.	78 00		
Architects, Andrews, Jacques & Rantoul	1,635 06		
Brick vault, Samuel McCulloch	14 20		
Building contract, C. A. Dodge & Co.	19,448 85		
Furniture:—			
A. H. Davenport	138 00		
Isaac McLean	299 50		
Gas and electric fixtures, C. H. McKenney & Co.	236 65		
Hardware, tools, etc.:—			
Burditt & Bynner	51 62		
J. A. Holmes & Co.	13 70		
Enoch Robinson	316 23		
Heating apparatus, Walker & Pratt Mfg. Co.	878 00		
Laying drain pipe:—			
Samuel McCulloch	5 25		
Water Works Dept.	14 99		
Plumbing, Isaac N. Tucker	2,428 84		
Printing specifications, John H. Ford	69 64		
		25, 633 13	
Sign boards:—			
Burditt & Bynner	$68 00		
Amounts carried forward	$68 00	$202,346 05	$260,063 00

Park Department (Construction) — Continued.

Amounts brought forward	$68 00	$202,346 05	$260,063 00
Jas. D. Hunting	7 50		
John Quin	50 00		
		125 50	
Spruce poles, stakes, etc.:—			
Coleman Bros.	$111 70		
John Quin	28 45		
		140 15	
Stamps, L. W. Poole		16 50	
Stationery, printing, postage:—			
Cambridge Chronicle Co.	$85 65		
W. B. Clarke & Co.	5 25		
Cotton & Gould	66 40		
Geo. E. Crosby & Co.	15 00		
John H. Ford	155 17		
Franklin Eng. Co.	20 51		
Frost & Adams	3 60		
Library Bureau	56 60		
Pulsifer, Cook & Co.	10 40		
Pulsifer, Jordan & Co.	5 20		
Stationery dept.	101 22		
Louis F. Weston	5 50		
		530 50	
Stone:—			
John J. Cuddihy (catch basin stones)	$47 25		
Hugh Farrell (ballast)	2,911 41		
Austin Ford & Son (edgestone)	149 34		
H. Gore & Co., (edgestone)	70 80		
S. & R. J. Lombard, (granite)	631 00		
Mass. Broken Stone Co.	4,310 33		
David O'Mara (chip-stone)	15 00		
		8,135 13	
Stone-cutting, John J. Horgan		15 75	
Sundries		25 30	
Supply pipes, Cambridge Water Works		352 08	
Teaming, sundry persons		5,990 12	
Telephone rent and tolls		245 91	
Amounts carried forward		$217,922 99	$260,063 00

Park Department (Construction) — Concluded.

Amounts brought forward		$217,922 99	$260,063 00
For Trees, plants, grass, etc.:—			
Andorra Nurseries	$226 25		
R. & J. Farquhar & Co.	42 05		
L. W. Ross & Co.	7 50		
Shady Hill Nurseries	148 50		
Sundry persons	7 50		
		431 80	
Typewriter, repair and supplies:—			
J. Hildreth & Co.	$6 50		
Smith Premier Typewriter Co.	7 95		
		14 45	
Use of engine, Geo. E. Worthen		14 00	
Use of steam roller, Barber Asphalt Co.		77 50	
Total			218,460 74
Balance unexpended			$41,602 26

Park Department (Maintenance.)

Appropriation			$9,000 00

RECEIVED.

For Horse	$25 00		
Labor	2 56		
Trees	5 00		
	$32 56		

EXPENDED.

For Salaries of			
Foreman, Jas. Doherty	$854 99		
Asst. Foreman, J.F. Donnelly	424 50		
Labor, as per pay-roll	4,902 75		
		6,182 24	
Ash barrels, F. A. White		16 50	
Bicycle, Burditt & Bynner		65 75	
Flag repairs:—			
Fannie E. Blaisdell	$1 00		
Mrs. G. E. Richardson	13 75		
		14 75	
Amounts carried forward		$6,279 24	$9,000 00

Park Department (Maintenance) — Concluded.

Amounts brought forward		$6,279 24	$9,000 00
For Flag-staff repairs, Davis Cass		39 79	
Fuel, Baker, Hunnewell Co.		218 40	
Hardware, tools, utensils, etc:—			
Ames Plow Co.	$696 33		
Burditt & Bynner . . .	107 42		
New Cambridge Casino .	7 00		
		810 75	
Harness repairs, Hugh McCaffrey . . .		6 45	
Horse-shoeing, Street Department . . .		11 90	
Horse board:—			
Street Department . . .	$130 00		
Whiting & Smith . . .	150 00		
		280 00	
Loam, Curley & Callaghan		272 95	
Manure, David O'Mara		129 92	
Painting, J. L. P. Ackers		107 12	
Poles, Coleman Bros.		55 00	
Printing, John H. Ford		11 50	
Removing stone posts, Thos. O'Hara . .		30 00	
Repairing tools:—			
Street Department . . .	$9 50		
Daniel J. Sullivan . . .	27 35		
		36 85	
Sundries		14 43	
Teaming, sundry persons		281 51	
Trees, plants and grass:—			
Wm. E. Doyle	$165 00		
R. Farquhar & Co. . . .	29 90		
R. and J. Farquhar & Co.	89 80		
Edmund Reardon . . .	5 00		
Shady Hill Nurseries . .	42 50		
		332 20	
Wagon repairs, Chas. Waugh & Co. . .		81 68	
Total			8,999 69
Balance unexpended			$ 31

Park Department (Maintenance, Interest).

Appropriation		$20,740 00
EXPENDED		
For Coupons	$9,380 00	
Registered	11,200 00	
Total		$20,580 00
Balance unexpended		$160 00

Park Department (Sinking Fund).

Appropriation	$8,450 00
EXPENDED	
For Amount required by City Ordinance for payment of debt	$8,450 00

Park Department

In account with the City of Cambridge for the year ending November 30th, 1896.

RECEIPTS AND EXPENDITURES.

Balance in the City Treasury to the credit of the Park Dept., Nov. 30th, 1895	$24,429 32	Expended for:— Lands and Construction	$218,460 74
Revenue from sale of Bonds	240,000 00	Maintenance	8,999 69
Premiums	19,411 00	Interest	20,580 00
Accrued Interest	1,315 56	Sinking Fund	8,450 00
Rents, Sales, etc.	3,580 74	Balance carried forward to credit of Park Dept.	32,246 19
	$288,736 62		$288,736 62

Plumbers Examiners' Department.

Appropriation			$125 00
RECEIVED.			
For Licenses	$30 00		
EXPENDED.			
For Examiner, John Crawford		$86 05	
Clerk, H. M. Griffin		15 00	
Total			101 05
Balance unexpended			$23 95

Police Department.

Appropriation			$112,000 00
Transferred to Contingent Fund			1,500 00
			$110,500 00

RECEIVED.

For cloth for uniforms		$512 40	
Court fees		4,423 05	
Error in pay-roll		3 00	
Fines		1,732 00	
Services of officers, W. E. Street Railway Company		160 00	
		$6,830 45	

EXPENDED.

For salaries of			
Chief, L. J. Cloyes	$1,800 00		
Captains:—			
M. J. Folsom	1,399 92		
T. H. Lucy	1,166 60		
J. F. Murray	1,399 92		
Fred B. Pullen	116 66		
Court officer, W. F. Batchelder	1,189 50		
Inspector, J. E. Murray	1,216 66		
Sergeants	8,053 50		
Patrolmen	84,650 49		
Drivers	3,227 79		
Matrons	732 00		
		$104,953 04	
Belts, H. A. Winship		9 00	
Buttons, D. Evans & Co.		70 00	
Carpentry, W. H. Norris		9 08	
Carriage hire, Whiting & Smith		20 00	
Car tickets, W. E. Street Railway Co.		200 00	
Cash expended for sundries:—			
Wm. F. Batchelder	$8 50		
L. J. Cloyes	41 61		
M. J. Folsom	45 50		
Chas. Munroe	11 00		
J. E. Murray	40 65		
Amounts carried forward	$147 26	$105,261 12	$110,500 00

Police Department — Continued.

Amounts brought forward	$147 26	$105,261 12	$110,500 00
J. F. Murray	26 43		
Sundry persons	5 10		
		178 79	
Chevrons, devices, silver figures:—			
Samuel O. Aborn	$24 00		
Mrs. J. E. Marshall	77 90		
		101 90	
Chimneys, mantles, etc., Boston Gas Appliance Exchange		8 95	
Cleaning stations		144 00	
Cleaning carpets, George F. Ricker		8 39	
Cloth for uniforms, Wendell, Fay & Co.		684 65	
Directories:—			
E. F. Hunt & Co.	$18 00		
Sampson, Murdock & Co.	5 00		
		23 00	
Disinfectants, R. S. Downe Co.		5 00	
Expressage and moving furniture:—			
Hatch & Co.	$2 45		
J. R. & C. S. Hersum	14 00		
Savage & Son	10 00		
		26 45	
Fire arms and repairs, William Read & Sons		31 59	
Furniture and repairs and bedding:—			
H. H. Cotton & Co.	$6 50		
James Grant	13 55		
D. W. Hyde & Co.	10 54		
Phillips Bros. & Co.	28 10		
Rourke & Kennedy	3 00		
		61 69	
Hardware and supplies:—			
Brock Bros.	$5 21		
Burditt & Bynner	33 06		
D. W. Hyde & Co.	6 05		
Sundry Persons	5 00		
		49 32	
Hay and grain:—			
J. S. Bradeen	$81 51		
A. G. Dore & Co.	330 58		
		412 09	
Amounts carried forward		$106,996 94	$110,500 00

Police Department — Continued.

Amounts brought forward		$106,996 94	$110,500 00
For Horse board, Whiting & Smith . . .		300 00	
Horse clipping:—			
F. E. Newgent & Co. . .	$6 00		
John Smith	18 00		
		24 00	
Horse clothing, harness and repairs:—			
Owen Doherty	$28 70		
John S. Williams . . .	16 00		
Sundry Persons	6 25		
		50 95	
Horse- shoeing:—			
Wm. Balmer	$44 00		
T. Burke	35 75		
Thomas Smith	24 50		
		104 25	
Ice:—			
Boston Ice Co.	$27 00		
Fresh Pond Ice Co. . . .	26 76		
		53 76	
Lighting stations:—			
Cambridge Electric Light Co.	$48 00		
Cambridge Gas Light Co. .	1,132 78		
Mantles	2 00		
		1,182 78	
Medicines:—			
Reycroft Pharmacies . .	$6 55		
Sundry Persons	1 60		
		8 15	
Photographs:—			
Geo. D. Ford	$2 00		
F. C. Garth	16 00		
		18 00	
Police signal supplies:—			
Municipal Signal Co. . .	$1 50		
N. E. Gamewell Co. . .	30 10		
		31 60	
Professional attendance:—			
Paul F. Ela, M. D. . . .	$4 00		
Amounts carried forward . .	$4 00	$108,770 43	$110,500 00

Police Department — Concluded.

Amounts brought forward	$4 00	$108,770 43	$110,500 00
P. M. Fitzsimmons, M. D.	10 00		
Chas. J. Walsh, M. D.	3 00		
		17 00	
Procuring evidence, Melvin A. Priest		7 00	
Stationery and printing:—			
Cambridge Co-operative Society	$5 18		
Cotton & Gould	178 23		
Lombard & Caustic	92 25		
Pulsifer, Cook & Co.	106 09		
Stationery Department	52 77		
		434 52	
Sundries		29 70	
Supplies:—			
D. W. Hyde & Co.	$9 60		
M. R. Jouett & Co.	3 56		
Jas. H. Wyeth & Co.	7 99		
Yerxa & Yerxa	8 00		
		29 15	
Telephone rent and tolls		463 70	
Typewriter repairs and supplies, W. M. Belcher & Co.		11 00	
Use of boats:—			
Albin Boyson	$5 00		
Frank Travers	3 00		
		8 00	
Use of horses:—			
D. K. Emerson	$5 00		
Alexander Robertson	5 00		
Whiting & Smith	64 00		
		74 00	
Use of equipments, National Lancers		10 50	
Wagon repairs:—			
A. J. Jones	$1 75		
John Lane	5 00		
Chas. Waugh & Co.	234 64		
		241 39	
Whips, Darling's Whip Mfg. Co.		14 75	
Total			110,111 14
Balance unexpended			$388 86

Public Library Department.

Appropriation			$18,500 00
RECEIVED.			
For Dogs' licenses for 1895		$3,886 83	
Fines and catalogues		510 12	
		$4,396 95	
EXPENDED.			
For Salaries of			
Librarian, Wm. L. R. Gifford	$1,999 98		
Assistants	4,167 13		
Janitors:—			
T. M. Thomas	1,061 50		
S. D. Anderson	20 00		
		$7,248 61	
Advertising:—			
Cambridge Chronicle Co.	$12 40		
James Cox	2 00		
F. S. Hill	17 35		
		31 75	
Baskets, Hopkinson & Holden		15 00	
Binding and binders:—			
E. W. Bettinson	$79 24		
Chas W. Facey	100 35		
J. H. H. McNamee	720 75		
Neilson Mfg. Co.	26 95		
		927 29	
Books, periodicals, etc.:—			
Amee Bros.	$497 68		
D. Appleton & Co.	15 43		
Balch Bros.	16 00		
Boston Book Co.	32 95		
John W. Cadby	14 50		
N. R. Campbell	45 75		
T. H. Castor & Co.	198 07		
W. B. Clarke & Co.	1,009 65		
Estes & Lauriat	15 62		
E. B. Hall	25 00		
Harris Pub. Co.	21 00		
H. S. Inman	25 00		
C. A. Koehler & Co.	7 25		
Little, Brown & Co.	3,060 27		
Geo. E. Littlefield	460 85		
Amounts carried forward	$5,445 02	$8,222 65	$18,500 00

Public Library Department — Continued.

Amounts brought forward . .	$5,445 02	$8,222 65	$18,500 00
Mass. Historical Society .	6 00		
Memorial Volume Co. . .	5 00		
Joel Munsell's Sons . . .	5 00		
N.E. Historic Gen'l Society	7 20		
Geo. H Polley & Co. . .	47 50		
G. P. Putnam's Sons . .	5 00		
H. Williams	21 25		
Charles L. Woodard . .	56 93		
Sundry persons	20 20		
		5,619 10	
Carpentry, John Quin		93 07	
Cash for sundries, W. L. R. Gifford . .		96 11	
Delivery of books:—			
Wm. B. Cade	$468 60		
M. I. Dow	35 00		
E. C. Gove	35 00		
H. M. Grant	35 00		
J. W. Hunnewell . . .	70 00		
Carrie E. Phillips . . .	46 16		
L. W. Reycroft	50 00		
		739 76	
Directories:—			
W. A. Greenough & Co. .	$5 00		
Sampson, Murdock & Co.	11 00		
		16 00	
Electrical apparatus and repairs:—			
F. Bryant & Co. . . .	$18 47		
Thos. W. Gleeson . . .	46 99		
Inspection of wires . . .	4 20		
Richard Phelps	9 05		
		78 71	
Expressage, Sawin's Express		45 97	
Fuel:—			
Baker, Hunnewell Co. .	$201 03		
David Proudfoot & Co. .	27 50		
Richardson & Bacon . .	295 95		
		524 48	
Furniture and repairs:—			
Irving & Casson	$55 00		
Paine Furniture Co. . .	8 50		
Amounts carried forward . .	$63 50	$15,435 85	$18,500 00

Public Library Department — Continued.

Amounts brought forward . .	$63 50	$15,435 85	$18,500 00
John Quin	32 14		
Sundry persons	3 30		
		98 94	
Hardware and supplies: —			
Burditt & Bynner . . .	$27 28		
Sundry persons	5 71		
		32 99	
Ice, Fresh Pond Ice Co.		18 25	
Index case, cards, etc., Library Bureau .		331 58	
Insurance, Ellis & Melledge		108 00	
Lighting: —			
Cambridge Elec. Light Co.	1,116 47		
Cambridge Gas Light Co.	3 50		
		1,119 97	
Lighting apparatus: —			
Bernstein Electric Co. . .	$50 00		
Greene & Co.	2 78		
N. W. Turner Co. . . .	9 10		
		61 88	
Mason work, Thos. Leahy & Son . . .		67 61	
Painting, etc., Chas. A. Sawyer . . .		76 23	
Rent, The Prospect Union		60 00	
Repairing heating apparatus: —			
S. C. Higgins	$204 05		
Roberts Iron Works Co. .	2 77		
		206 82	
Repairing roof, Wm. Gordon		9 88	
Savogran, India Alkali Works		7 41	
Scale, The Fairbanks Co.		6 00	
Screens, John Quin		20 00	
Signs and frames, J. E. Steffens . . .		8 00	
Stationery and printing: —			
Amee Bros.	$11 50		
Cambridge Co-operative Society	150 37		
Hooper, Lewis & Co. . .	23 55		
E. W. Wheeler	345 10		
Sundry persons	14 50		
		545 02	
Amounts carried forward		$18,214 43	$18,500 00

Public Library Department — Concluded.

Amounts brought forward	$18,214 43	$18,500 00
For Stamps, H. C. Dimond & Co.	6 08	
Sundries	11 55	
Typewriter, W. M. Belcher & Co.	100 50	
Typewriter repairs and supplies, Hammond Typewriter Co.	21 50	
Total		18,354 06
Balance unexpended		$145 94

Public Library Building.

Appropriation		$265 22
EXPENDED.		
For Oiling and shellacing, Chas. A. Sawyer	$20 94	
Shelving, M. F. Tracy & Son	118 00	
Total		$138 94
Balance unexpended		$126 28

Public Property, (City Buildings, Care and Repair.)

Appropriation			$26,000 00
Transferred to New Engine House, Ward Three			333 30
			$25,666 70
RECEIVED.			
For Building Fences		$81 75	
Old sign		1 00	
Rebate on Insurance		60 00	
Rents:—			
Armories	$800 00		
District Court Rooms	450 00		
Old Bridge School House	55 00		
Prospect Union	100 00		
W. W. Office, Shop, etc.	2,000 00		
		3,405 00	
Rent of land, Portland Street		124 98	
		$3,672 73	
Amount carried forward			$25,666 70

Public Property (City Buildings, Care and Repair) — Continued.

Amount brought forward			$25,666 70
EXPENDED.			
For Salaries of Janitors		10,181 70	
Expressage and teaming, Charles McMahon		11 50	
Fuel:—			
Baker-Hunnewell Co.	$1,264 24		
Coleman Bros.	148 40		
P. F. Gayton & Co	16 80		
H. Wellington & Co	1,390 72		
Weighing, H. W. Brooks	10 35		
		2,830 51	
Lights:—			
Cambridge Electric Light Company	$1,729 79		
Cambridge Gas Light Co.	1,140 22		
		2,870 01	
Mourning decorations, Lee L. Powers		35 00	
Sundries		13 07	
Use of chairs, Pettingell & Pear		20 00	
Repairs and alterations:—			
Brass railing and post, Collins & Richards		13 25	
Carpentry:—			
W. Fillmore & Co.	$288 46		
John Quin	320 66		
W. H. Norris	1,557 21		
I. B. Rice	208 30		
		2,374 63	
Cleaning carpets:—			
John H. Kelsey	$5 75		
George F. Ricker	35 39		
		41 14	
Clock repairs, A. J. Applegate		11 75	
Drain work, Samuel McCulloch		8 05	
Electric Work:—			
Electric Gas Lighting Co.	$11 09		
Pettingell, Andrews Co.	150 64		
		161 73	
Elevator repairs:—			
B. F. Sturtevant Co.	$21 10		
Whittier Machine Co.	69 33		
		90 43	
Amounts carried forward		$18,662 77	$26,666 70

Public Property (City Buildings, Care and Repair) — Continued.

Amounts brought forward		$18,662 77	$25,666 70
For Repairs and alterations:—			
Engine House Track, Collins & Richards .		45 00	
Furniture repairs:—			
A. Alexander	$77 75		
F. M. Eaton	10 75		
James Grant	19 00		
Rourke & Kennedy . .	6 25		
		113 75	
Heating and ventilating apparatus and repairs:—			
Brock Bros.	$60 00		
Wm. Fitzgerald	37 62		
Greene & Co.	340 47		
Lake Regulator Co. . .	5 08		
Henry McGahey	892 50		
Roberts Iron Works Co. .	71 46		
		1,407 13	
Iron Work:—			
L. M. Ham & Co. . . .	$24 50		
Miller & Shaw	7 20		
		31 70	
Lighting apparatus:—			
N. W. T. Knott, Agt. . .	$136 00		
John J. Long	9 00		
N. W. Turner Co. . . .	77 00		
		222 00	
Mason work:—			
Henry McGahey	$358 63		
John McDonald & Son .	23 75		
Stearns & Waterman . .	165 55		
		547 93	
Moving bath-house, David Cass		39 50	
Plating, Bay State Nickel Plate Works .		12 50	
Painting, glazing, papering:—			
J. L. P. Ackers	$382 10		
W. J. Edwards	9 60		
Chas. E. McMenimen . .	5 00		
N. E. Art Glass Works .	8 32		
George W. Stacy . . .	80 20		
J. J. Shedd	5 00		
E. Tripp & Co.	30 36		
Amounts carried forward . .	$520 58	$21,082 28	$25,666 70

Public Property (City Buildings, Care and Repair) — Continued.

Amounts brought forward . .	$520 58	$21,082 28	$25,666 70
F. H. Tufts	24 25		
Woods Bros.	38 00		
		582 83	
Plumbing: —			
Brock Bros.	$39 01		
E. W. Clark	360 03		
Greene & Co.	103 67		
Levi Hawkes	9 38		
John J. Long	5 53		
H. L. Rose	993 95		
		1,511 57	
Plastering, Wm. J. Heron		20 28	
Putting up awnings, Jas. Martin & Son .		6 00	
Roof repairs, John J. Blevins		88 39	
Repairs on Safes, Damon Safe and Iron Works		12 33	
Repairs, Cambridge Gas Light Co. . . .		10 18	
Removing night soil, R. M. Johnson . .		16 00	
Stone Work, Wm. A. Bertsch		7 50	
Sundries		36 49	
Supplies: —			
Clock, Miller Bros.		6 00	
Electric Motor, Pettingill, Andrews Co.		16 85	
Engineers Supplies: —			
W. A. Morrison . . .	$62 86		
E. Morris	59 22		
		122 08	
Furniture and furnishings: —			
Derby Desk Co. . . .	$15 00		
Jas. A. Furfey . . .	16 25		
John H. Kelsey . . .	8 50		
Phillips Bros. & Co. . .	76 50		
W. W. Pratt	11 25		
Stewart Screen Co. . .	20 90		
Worcester Bros. . . .	7 00		
		155 40	
Granite Fenders for New Engine House Ward Two, Peter Blessington & Son .		40 00	
Amounts carried forward		$23,714 18	$25,666 70

Public Property (City Buildings, Care and Repair) — Concluded.

Amounts brought forward		$23,714 18	$25,666 70
For Hardware, tools and supplies:—			
Boston Woven Hose Co.	$13 73		
Burditt & Bynner . . .	87 75		
J. F. Pennell	17 00		
J. M. Price & Son . . .	25 03		
Walworth Mfg. Co. . .	11 71		
F. A. White	11 58		
		166 80	
Ice, Fresh Pond Ice Co.		54 46	
Lumber:—			
Geoge W. Gale Lumber Co.	$9 09		
M. F. Tracy & Son . . .	15 97		
		25 06	
Lamps, etc., Anniversary Committee . .		100 50	
Markers for Shooting Range, S. C. Higgins		10 00	
Oil, etc.:—			
Lubron Mfg. Co. . . .	$65 47		
W. A. Morrison	21 60		
		87 07	
Safe, Damon Safe and Iron Works . . .		1,000 00	
Safe boxes, Damon Safe and Iron Works .		20 00	
Savogran, India Alkali Works		7 41	
Stationery, Cotton & Gould		7 00	
Soap:—			
George W. Bentley & Co. .	$13 00		
Fels & Co.	9 00		
Royal Powdered Soap Co. .	6 50		
		$28 50	
Sundries:—			
Wm. H. Claflin & Co. . .	$13 00		
Diamond Match Co. . .	10 50		
D. W. Hyde & Co. . . .	13 03		
Chas. Munroe	30 41		
Sundry persons	55 18		
		122 12	
Total			$25,343 10
Balance unexpended			$323 60

Public Property, (Heating Apparatus, City Hall).

Appropriation	$3.129 00
EXPENDED.	
For the Evans Exhaust Hot Water Heating System	$3,129 00

Public Property (Incidentals).

Appropriation			$5.500 00
EXPENDED.			
For Salaries of			
Supt. of Bldgs., Wm. H. Gray	$1,750 00		
Inspectors:—			
James W. Emery	1,000 00		
Wm. A. Ford	1,000 00		
Clerk, Lillian W. Hyde	312 00		
		$4,062 00	
Advertising		5 00	
Bicycle rent, J. L. Moseley		26 00	
Bicycle, E. W. Clark		55 00	
Care of horse, C. W. Dailey		264 00	
Care and repair of tower clocks:—			
Charles H. Chandler	$26 00		
A. K. Jones	52 00		
J. B. Mace	26 00		
George M. Stevens	26 70		
H. S. Woodworth	32 00		
		162 70	
Carriage hire:—			
Lake & Moynahan	$15 00		
E. A. Leeman & Co.	8 00		
Whiting & Smith	6 00		
		29 00	
Carriage, Chas. Waugh & Co.		250 00	
Car tickets, W. E. Street Railway Co.		160 00	
Dinners, M. R. Jones		29 00	
Harness and Repairs:—			
Chas. W. Dailey	$11 50		
A. Freeman & Son	35 00		
		46 50	
Horse-shoeing, Wm. Balmer		22 50	
Carriage robe, Houghton & Dutton		12 50	
Amounts carried forward		$5,124 20	$5,500 00

Public Property (Incidentals) — Concluded.

Amounts brought forward		$5,124 20	$5,500 00
For Stationery, printing: —			
Cambridge Co-operative Society	$6 49		
Cambridge Chronicle Co.	29 00		
Cotton & Gould	40 75		
G. B. Lenfest	5 00		
Stationery Dept.	39 27		
		120 51	
Sundries		9 25	
Total			5,253 96
Balance unexpended			$246 04

Public Property, (New Engine House, Ward Three.)

Appropriation	$9,130 60
Transferred from City Buildings	333 30
	$9,463 90

EXPENDED.

For Brick: —			
M. W. Sands		$11 17	
Contract for building, Thos. H. Connell		8,440 53	
Electric Work, Pettingell, Andrews Co.		7 74	
Fixtures, N. W. Turner Co.		63 90	
Fuel; —			
Coleman Bros.	$21 42		
H. Wellington & Co.	35 68		
		57 10	
Heating apparatus, Greene & Co.		304 00	
Labor, as per pay roll		17 24	
Mantel, John Quin		15 00	
Metal ceiling, E. B. Badger & Sons		150 00	
Painting, etc., M. A. Feeley		89 50	
Paving blocks, S. & R. J. Lombard		67 75	
Plans, J. E. Muldoon		228 65	
Repairs, Cambridge Gas Light Co.		6 82	
Teaming, Thomas O'Hara		4 50	
Total			$9,463 90

Public Property (New Engine House, Ward Five).

Appropriation			$22,666 62
EXPENDED.			
For Advertising, Cambridge Chronicle Co.		$1 35	
Architects Services, Aaron H. Gould		333 37	
Carpentry, W. H. Norris		30 20	
Contract, for Building, W. L. Clarke & Co.		22,164 28	
Cash expended, Charles F. Hopewell		11 00	
Electric Supplies:—			
Pettingell, Andrews Co.	$68 77		
Simplex Electric Co.	34 60		
		103 37	
Supply pipe, Cambridge Water Works		21 09	
Total			22,664 66
Balance unexpended			$1 96

Public Property (New Latin School House.)

Appropriation			$250,000 00
EXPENDED.			
For Architect, Walker & Kimball		$250 00	
Expert services, F. W. Chandler		25 00	
Plans:			
Wm. E. Chamberlin	$200 00		
Cram, Wentworth & Goodhue	300 00		
J. A. Schweinfurth & Timothy Walsh	100 00		
H. Langford Warren	500 00		
		1,100 00	
Total			1,375 00
Balance unexpended			$248,625 00

Public Property (New School House, Ward One.)

Appropriation			$34,960 89
Transferred from Incidental			5,000 00
			$39,960 89
EXPENDED.			
For Contract for Building, John McDonald & Son		$22,337 25	
Electric Supplies:—			
Anchor Electric Co.	$6 83		
Pettingell, Andrews Co.	132 47		
		139 30	
Labor as per pay roll		30 00	
Labor on electrical fixtures:—			
George E. Allyn	$15 00		
Wm. H. Buchanan	11 75		
Inspection of Wires	6 80		
		33 55	
Plans, etc., Aaron H. Gould		1,280 25	
Slate, W. J. Griffiths		294 00	
Sundries		9 70	
Typewriting:—			
Lillian W. Hyde	$8 80		
Eben W. Pike	5 60		
		14 40	
Water Supply, Water Works		59 83	
Wiring:—			
R. McDonald	$13 75		
J. W. Reid	13 75		
		27 50	
Total			24,225 78
Balance unexpended			$15,735 11

Public Property (New School House, Ward Three).

Appropriation			$17, 292 49
EXPENDED.			
For Ash-barrels, County of Middlesex		$30 00	
Blackboard:—			
J. L. Hammett	$15 50		
J. A. Swasey	181 47		
		196 97	
Amounts carried forward		$226 97	$17,292 49

Public Property (New School House, Ward Three) — Concluded.

Amounts brought forward		$226 97	$17,292 49
For Cleaning		27 09	
Carpentry:—			
W. H. Norris	$53 37		
John Quin	65 34		
		118 71	
Contract for Building, Mack & Moore		14, 270 66	
Clocks, Simon Flaig		10 00	
Electric fixtures, Pettingell, Andrews Co.		33 19	
Furniture and furnishings:—			
Chas. W. Allen	$180 00		
Bobrick School Furniture Co.	803 00		
Chandler Adjustable Chair and Desk Co.	608 82		
County of Middlesex	40 50		
Heywood Bros. & Co.	100 58		
Paine Furniture Co.	20 70		
George S. Perry & Co.	168 00		
W. W. Pratt	111 47		
		2,033 07	
Hardware, tools:—			
Burditt & Bynner	$13 90		
J. D. Jewett & Co.	196 50		
		210 40	
Labor, as per pay roll		8 00	
Plans, C. Herbert McClare		230 03	
Plumbing, Albert H. Ricker		53 60	
Repairing clocks, Simon Flaig		56 00	
Sundries		5 60	
Total			17,283 32
Balance unexpended			$9 17

Public Property (Sanitary Arrangements, Schools).

Appropriation:			$8,000 00

EXPENDED.

For Carpentry:			
John Quin	$57 68		
J. A. Thomas	81 53		
		$139 21	
Amounts carried forward		$139 21	$8,000 00

Public Property (Sanitary Arrangements, Schools) — Concluded.

Amounts brought forward		$139 21	$8,000 00
For Excavating, J. Warren White		100 00	
Labor, Patrick Boyle		27 13	
Mason Work:—			
John B. Byrne	113 00		
J. Warren White	268 70		
		$381 70	
Plumbing:—			
M. F. Davlin & Co.	$1,268 57		
Greene & Co.	2,209 51		
John J. Long	34 59		
A. J. Marks	910 32		
Chas. Moore & Son	2,681 28		
H. L. Rose	157 68		
		$7,261 95	
Repairing drain: James Mahoney		45 80	
Removing sanitaries, James Gray		37 00	
Total			$7,992 79
Balance unexpended			$7 21

Public Property (School Houses, Care and Repair.)

Appropriation			$50,000 00
Transferred from Contingent Fund			544 83
			$50,544 83
EXPENDED.			
For Salaries of Janitors		$23,470 43	
Expressage and moving furniture: —			
Anderson's Express	$7 10		
P. Biggin	41 75		
Donovan's Express	6 60		
J. R. & C. S. Hersum	18 50		
Chas. McMahon	7 00		
		80 95	
Fuel: —			
Baker-Hunnewell Co.	$10,065 84		
Coleman Bros.	388 82		
P. F. Gayton & Co.	180 75		
Amounts carried forward	$10,635 41	$23,551 38	$50,544 83

Public Property (School Houses, Care and Repair) — Continued.

Amounts brought forward . .	$10.635 41	$23,551 38	$50,544 83
For Fuel: —			
H. Wellington & Co. . .	2,149 73		
Weighing, H. W. Brooks .	110 00		
		12.895 14	
Lights, Cambridge Gas Light Co. . . .		935 75	
Removing night-soil, R. M. Johnson . .		8 00	
Rent, J. F. O'Brien		200 00	
Sundries		5 05	
Repairs and Alterations:—			
Blackboards: —			
American Blackboard Co.	$333 44		
J. L. Hammett Co. . .	25 50		
J. A. Swasey	12 00		
		370 94	
Carpentry: —			
E. W. Boynton & Co. .	$134 65		
W. Fillmore & Co. . .	22 77		
O. B. French	103 15		
M. J. O'Connell . . .	6 00		
Daniel A. Mahoney . .	62 13		
George E. McPhail . .	7 10		
W. H. Norris	1.916 45		
John Quin	123 19		
I. B. Rice	251 02		
R. & C. G. Wentworth .	44 75		
		2,671 21	
Clock Repairs: —			
A. J. Applegate . . .	$30 75		
J. F. Bacon	11 50		
Jas. W. Marshea . . .	6 50		
Clock repairs:—			
Miller Bros.	$20 00		
J. P. Shurtleff . . .	5 00		
		73 75	
Electric Work:—			
F. M. Buffum	$18 75		
Johnson Electric Service Co.	56 68		
		75 43	
Amounts carried forward		$40,786 65	$50,544 83

Public Property (School Houses, Care and Repair) — Continued.

Amounts brought forward		$40,786 65	$50,544 83
For Furniture repairs:—			
F. M. Eaton	$16 25		
T. B. Wentworth	5 25		
		21 50	
Gas fittings, etc.:—			
M. F. Davlin & Co.	$32 27		
N. W. T. Knott, Agt.	13 10		
John J. Long	33 47		
		78 84	
Heating and ventilating apparatus, repairs:—			
Brock Bros.	$430 15		
Dunklee & Co.	6 50		
Wm. Fitzgerald	94 95		
Greene & Co.	346 32		
S. C. Higgins	647 56		
Moynahan & Co.	218 17		
J. M. Price & Son	404 36		
Roberts Iron Works Co.	159 54		
D. J. Wild & Co.	258 30		
		2,565 85	
Mason work:—			
Wm. Crane	$8 00		
John McDonald & Sons	39 00		
Henry McGahey	198 70		
McGahey & Byrne	6 75		
Stearns & Waterman	149 36		
		401 81	
Paving, H. T. Soper		16 50	
Painting, glazing, whitewashing:—			
J. L. P. Ackers	$1,181 28		
C. P. Alberts	49 35		
Geo. A. Blanchard, Agt.	100 00		
T. H. Donlan	9 80		
Thos. H. Hall	30 26		
F. Hayden	16 10		
Wm. Holden	35 00		
W. B. Holt, Est.	6 50		
Timothy Horan	5 25		
Amounts carried forward	$1,433 54	$43,871 15	$50,544 83

Public Property (School Houses, Care and Repair — Continued.)

Amounts brought forward.	$1,433 54	$43,871 15	$50,544 83
For Repairs and Alterations: —			
Painting, glazing, whitewashing: —			
Chas. E. McMenimen	25 05		
Chas. A. Sawyer	35 25		
J. J. Shedd	20 93		
Daniel F. Smith	248 80		
J. H. & J. P. Thayer & Co.	5 24		
F. H. Tufts	43 00		
Woods Bros.	421 75		
		$2,233 56	
Plumbing: —			
E. W. Clark	$79 69		
M. F. Davlin & Co.	44 43		
Greene & Co.	25 33		
W. Haley	135 20		
Levi Hawkes	85 97		
Albert H. Ricker	7 20		
H. L. Rose	229 88		
D. J. Wild & Co.	67 55		
		675 25	
Plastering, Wm. J. Heron		342 15	
Repairs, Cambridge Gas Light Co.		5 60	
Repairing flag, Mrs. G. E. Richardson		12 50	
Roof Repairs, etc.: —			
John J. Blevins	$375 26		
E. Van Norden & Co.	22 10		
		397 36	
Sundry Repairs: —			
J. B. Higgins.	$5 15		
Sundry persons	48 57		
		53 72	
Supplies: —			
Boxes, Charles Place		5 00	
Clocks: —			
A. J. Applegate	$5 00		
Jas. A. Rice	13 50		
J. P. Shurtleff	5 00		
		23 50	
Amounts carried forward		$47,619 79	$50,544 83

Public Property (School Houses, Care and Repair) — Continued.

Amounts brought forward		$47,619 79	$50,544 83
For Supplies:—			
Disinfectants:—			
C. W. Lerned & Co.	$42 50		
Sulpho-Napthol Co.	48 00		
		90 50	
Dustlayer, Notion Specialty Co.		80 00	
Dusters, brushes, brooms:—			
F. M. Eaton	$158 00		
W. G. Hallock	17 50		
Jordan & Christie	24 00		
G. H. Worcester & Co.	96 69		
		296 19	
Furniture and furnishings:—			
Bobrick School Furniture Co.	$42 00		
Burditt & Bynner	53 63		
Chandler Ajustable Chair Co.	507 35		
County of Middlesex	123 12		
Dover Stamping Co.	5 00		
Jas. A. Furfey	86 01		
Jos. Hartshorn & Son	87 75		
Heywood Bros. & Co.	34 58		
Paine Furniture Co.	20 70		
George S. Perry & Co.	111 58		
Phillips Bros. & Co.	26 30		
W. W. Pratt	214 35		
George H. Richter & Co.	82 25		
J. W. Wildes & Co.	22 72		
		1,417 34	
Hardware, tools, supplies, etc.:—			
Brock Bros.	$39 95		
Burditt & Bynner	187 26		
Davidson Rubber Co.	19 62		
Dover Stamping Co.	6 00		
Wm. Fitzgerald	137 02		
A. J. E. Lord	8 00		
C. W. H. Moulton & Co.	7 50		
Amounts carried forward	$405 35	$49,503 82	$50,544 83

Public Property (School Houses, Care and Repair) — Concluded.

Amounts brought forward	$405 35	$49,503 82	$50,544 83
For Hardware, etc.:—			
J. M. Price & Son	83 94		
F. A. White	33 55		
Union Glass Co.	51 28		
		574 12	
Folding Gate, Collins & Richards		$35 00	
Heat Deflectors, Lunt & Sylvester, M. F. Marks, Agt.,		228 00	
Polish, Lothrop, Spooner Mfg. Co.		8 00	
Printing, Louis F. Weston		13 25	
Sawdust, Thos. A. Griffin		11 60	
Soap:—			
Curtis Davis & Co.	$8 50		
Hoxie Mineral Soap Corporation	7 50		
Kremo Mfg. Co.	5 75		
		21 75	
Sundries:—			
C. E. Bramhall	$7 31		
Wm. H. Claflin & Co.	26 00		
Frederick S. Cutter	5 32		
J. A. Holmes & Co.	10 15		
Thos. F. McCue	7 20		
Wm. H. White	56 43		
Sundry persons	36 88		
		149 29	
Total			$50,544 83

Public Property (New Shooting Range.)

Appropriation		$2,500 00
Transferred from Contingent Fund		525 00
		$3,025 00

EXPENDED.

For Carpentry, W. H. Norris	$387 00	
Clearing land, W. H. Homans	75 00	
Contract for building Shooting Range, A. J. Johnson & Sons	2,089 00	
Amounts carried forward	$2,551 00	$3,025 00

Public Property (New Shooting Range) — Concluded.

Amounts brought forward	$2,551 00	$3,025 00
For Filling in, etc., Johnson Bros.	140 00	
Furniture, C. B. Moller	10 00	
Heating apparatus, Brock Bros.	21 15	
Markers, S. C. Higgins	7 80	
Sundries	3 02	
Transportation of Military Companies, Boston & Maine Railroad	255 00	
Total		$2,987 97
Balance unexpended		$37 03

School Department (Care of Truants.)

Appropriation			$2,500 00
EXPENDED.			
For Board of truants, Middlesex Co. Truant School		$2,229 42	
Transportation:—			
John Carmichael	$9 20		
Moses M. Child	2 10		
F. M. Mason	7 60		
Wm. H. Porter	14 30		
		33 20	
Total			2,262 62
Balance unexpended			$237 38

School Department (Flags.)

Appropriation		$900 00
EXPENDED.		
For Carpentry, W. H. Norris	$285 00	
Ensigns, bunting and line, Irving W. Wheeler & Co.	218 70	
Flag-staffs, H. Pigeon & Sons	233 00	
Repairing flag, Mrs. Richardson	2 00	
Total		738 70
Balance unexpended		$161 30

School Department (Incidentals.)

Appropriation			$1,000 00
EXPENDED.			
For Salaries of			
Secretary, S. B. Hubbard	$300 00		
Page, Charles M. Jones	25 00		
		325 00	
Advertising		19 10	
Car tickets, W. E. Street Railway Co.		150 00	
Cash expended:—			
Francis Cogswell (Traveling Expenses)	$16 05		
S. B. Hubbard (statistics)	6 00		
Chas. F. Warner (supplies)	1 75		
		23 80	
Copying music, O. D. Howlett		11 00	
Frame, C. F. Davis		3 00	
High School graduating exercises:—			
Music, F. E. Chapman	$35 00		
Services, A. K. Jones	3 00		
Sanders Theatre, Harvard University	17 50		
Use of lantern, etc., John H. Thurston	5 00		
		60 50	
Stationery and printing:—			
Cambridge Chronicle Co.	$3 18		
Cambridge Co-operative Society	144 00		
James Cox	8 00		
James H. Cox	30 00		
Thos. Groom & Co.	16 00		
Louis F. Weston	36 00		
		237 18	
Typewriting, John H. Gray		14 05	
Vaccine Virus, N. E. Vaccine Co.		27 32	
			870 95
			$129 05

School Department (Salaries.)

Appropriation			$250,000 00
RECEIVED.			
For Income from Hopkins Charity Fund	$705 66		
Tuition of non-resident pupils	1,108 50		
	$1,814 16		
EXPENDED.			
For Salaries of			
Superintendent, Francis Cogswell . . .		$3,000 00	
Supt.'s Clerk, Althea B. Frost		600 00	
Agent, S. B. Hubbard		1,860 00	
Special instructors:—			
Botany, Sarah E. Brassill	$550 00		
Drawing:—			
James M. Stone . . .	1,190 00		
Peter Roos	340 00		
Lucia N. Jennison . .	800 00		
Gymnastics:—			
Clara E. Shepard . .	410 00		
Catherine F. Pedrick .	60 00		
Music:—			
Frederick E. Chapman .	2,000 00		
Primary Dept.:—			
Mary A. Lewis . . .	1,000 00		
Sewing:—			
Nancy T. Dawe . . .	244 00		
Agnes Gordon . . .	600 00		
Alice H. Nay	600 00		
Inspector of kindergartens, Laura Fisher	50 00		
		7,844 00	
Teachers in			
Latin School	$16,525 00		
English High School .	24,612 00		
Grammar Schools . .	97,385 20		
Primary Schools . . .	67,539 30		
Wellington Training School	12,204 10		
Kindergarten Schools .	9,135 58		
		227,401 18	
Amounts carried forward		$240,705 18	$250,000 00

School Department (Salaries) — Concluded.

Amounts brought forward		$240,705 18	$250,000 00
Substitutes		560 00	
Teachers in evening school: —			
Drawing	$1,110 00		
High	1,321 50		
Allston	541 50		
Putnam	876 50		
Shepard	266 50		
Webster	419 50		
		4,535 50	
Truant officers		3,680 83	
Porter, John H. Lemon		158 00	
Total			249,639 51
Balance unexpended			$360 49

School Department — Text-Books and Supplies.

Appropriation			$17,000 00
Transferred from Contingent Fund			1,437 22
			$18,437 22
RECEIVED.			
For sale of, and damage to, books		$391 40	
EXPENDED.			
For apparatus and supplies: —			
American Book Co.	165 54		
Edward E. Babb & Co.	6 00		
Blodgett, Ordway & Webber	25 29		
Boston School Supply Co.	378 71		
Brown, Durrell & Co.	43 43		
Burditt & Williams	17 17		
Cambridge Manual Training School	30 00		
Davidson Rubber Co.	87 99		
Dennison Mfg. Co.	31 00		
Eagle Pencil Co.	444 75		
Eimer & Amend	56 49		
George B. Frazar	10 30		
Abram French & Co.	29 07		
Amounts carried forward	$1,325 74		$18,437 22

School Department (Text-Books and Supplies) — Continued.

Amounts brought forward . .	$1,325 74		$18,437 22
For apparatus and supplies:—			
Frost & Adams	134 63		
Greenough, Adams Cushing	1,072 14		
J. L. Hammett	464 53		
Thos. Hall & Son . . .	16 67		
G. F. King & Merrill . .	84 00		
L. E. Knott Appliance Co.	97 48		
George S. Perry & Co. .	159 40		
Prang Educational Co. .	289 03		
Pulsifer, Cook & Co. . .	1,534 92		
Pulsifer, Jordan & Co. .	1,885 61		
George H. Richter & Co. .	40 68		
E. S. Ritchie & Sons . .	11 00		
Thompson, Brown & Co. .	181 40		
Weeks, Potter & Co. . .	53 15		
Ziegler Electric Co. . . .	71 97		
		7,422 35	
Baskets, etc., Hopkinson & Holden . . .		5 50	
Binding: —			
David Farquhar	$289 04		
J. H. H. McNamee . . .	73 18		
		362 22	
Books: —			
Allyn & Bacon	$390 29		
American Book Co. . . .	116 02		
Boston School Supply Co.	334 70		
Henry G. Carey	49 00		
T. H. Castor & Co. . . .	315 09		
DeWolfe, Fiske & Co . .	180 59		
Oliver Ditson Co. . . .	$93 50		
Ginn & Co.	4,446 17		
J. L. Hammett Co. . . .	62 44		
Harper & Bros.	127 84		
D. C. Heath & Co. . .	493 19		
Houghton, Mifflin & Co.	459 65		
Leach, Shewell & Sanborn	75 62		
Lee & Shepard	83 10		
Longmans, Green & Co.	178 25		
Lothrop Publishing Co. .	70 00		
Amounts carried forward .	$7,475 45	$7,790 07	$18,437 22

School Department (Text-Books and Supplies) — Continued.

Amounts brought forward	$7,475 45	$7,790 07	$18,437 22
Mass. Bible Society	13 75		
Maynard, Merrill & Co.	6 00		
Memorial Volume Committee	14 00		
Perry Mason & Co.	43 40		
Silver, Burdett & Co.	133 01		
Mrs. R. L. Snow, Treas.	22 00		
Williard Small	17 78		
Thompson, Brown & Co.	1,442 26		
Wm. Ware & Co.	275 40		
Werner School Book Co.	54 00		
University Publishing Co.	190 56		
		9,687 61	
Carpentry, W. H. Norris		14 51	
Car tickets, W. E. Street Railway Co.		20 00	
Cash expended for sundries:—			
H. J. Chase	$10 89		
S. B. Hubbard	29 40		
Delia Stickney	5 10		
Chas. F. Warner	15 62		
		61 01	
Diplomas, Boston Bank Note and Lithographic Co.		153 52	
Expressage and moving furniture:—			
American Express Co.	$9 30		
Bancroft's Express	9 75		
H. W. Bettinson & Co.	20 40		
P. Biggin	129 00		
W. A. Nichols	86 60		
Sawin's Express	44 85		
		299 90	
Labor, John H. Lemon		13 80	
Maps, W. W. White & Co.		26 25	
Music, Frederick E. Chapman		21 60	
Printing:—			
Cambridge Co-operative Society	$63 90		
G. B. Lenfest	26 00		
Louis F. Weston	183 25		
		273 15	
Amounts carried forward		$18,361 42	$18,437 22

School Department (Text-Books and Supplies) — Concluded.

Amounts brought forward		$18,361 42	$18,437 22
For Subscriptions, N. E. Publishing Co.		10 10	
Sundries		53 20	
Tuning pianos:—			
Chas. H. Fosgate	$6 50		
L. W. Sawin	6 00		
		12 50	
Total			$18,437 22

School Department (Transportation of Pupils.)

Appropriation		$600 00
EXPENDED.		
For Transportation of Pupils, W. E. Street Railway Co.	$532 50	
Total		$532 50
Balance unexpended		$67 50

Sealer of Weights and Measures.

Appropriation			$1,600 00
RECEIVED.			
For Fees for Weighing and Sealing		$492 40	
EXPENDED.			
For Salaries of			
Sealer, A. F. Roberts	$977 08		
Assistant, C. D. Kinnear	141 25		
		$1,118 33	
Advertising, Cambridge Chronicle Co.		1 50	
Board and Care of Horse, G. D. Merrill		300 00	
Car-tickets, W. E. Street Railway Co.		10 00	
Desk, W. B. Badger & Co.		28 00	
Horseshoeing, Gerry & Rufer		18 75	
Lumber, E. D. Sawyer & Co.		4 76	
Painting		3 03	
Stationery		6 33	
Amounts carried forward		$1,490 70	$1,600 00

Sealer of Weights and Measures — Concluded.

Amounts brought forward		$1,490 70	$1,600 00
For Tools and repairs: —			
James Ryan	$6 75		
E. I. Train	1 50		
F. A. White	3 22		
		11 47	
Weighing Fees: —			
Thomas Gurnham	$8 93		
E. I. Train	33 57		
		42 50	
Wagon repairs, Nelson Carriage Co.		25 85	
Total			$1,570 52
Balance unexpended			$29 48

Sewers (Construction.)

Appropriation			$35,000 00
RECEIVED.			
For Assessments		$10,548 55	
Permits		870 11	
		11,418 66	
EXPENDED.			
For Labor, as per pay roll		$16,183 39	
Advertising, Boston Herald Co.		1 88	
Bricks: —			
D. Warren De Rosay	$520 18		
M. W. Sands	709 99		
		1,230 17	
Cement: —			
W. G. Nash	$110 25		
Waldo Bros.	1,153 15		
		1,263 40	
Cleaning Catch Basins, John Horrigan		96 00	
Cutting stones for Catch Basins: —			
John J. Cuddihy		58 00	
Expressage, M. W. Butland		2 50	
Fuel, Coleman Bros.		30 00	
Amounts carried forward		$18,865 34	$35,000 00

Sewers (Construction) — Continued.

Amounts brought forward		$18,865 34	$35,000 00
For Frames, covers and grates:—			
Barbour, Stockwell Co.	$4 50		
Concord Foundry Co.	85 50		
Mechanics Iron Foundry	545 25		
		635 25	
Gravel and Sand:—			
John Gallivan	$30 00		
Charles Linehan	36 00		
Thomas O'Hara	141 90		
John T. Scully	191 50		
		399 40	
Hardware supplies, Burditt & Bynner		85 45	
Iron work, Miller & Shaw		46 04	
Lumber and Mill Work:—			
J. H. Keenan & Co.	$20 74		
E. D. Sawyer & Co.	1,874 27		
D. C. Scranton	1 50		
Wm. H. Wood & Co.	562 64		
		2,459 15	
Piles, John T. Scully		1,449 43	
Pipe:—			
Davis & Farnum Mfg. Co.	$26 45		
Greene & Co.	294 00		
D. W. Lewis	3,045 27		
Portland Stone Ware Co.	2,570 87		
Geo. Wright	14 17		
		5,950 76	
Rebate of Assessments:—			
S. M. Parsons	$6 94		
John S. Sawyer	10 16		
		17 10	
Repairing tools, Chas. H. Goldsmith		11 45	
Stone:—			
John J. Cuddihy	$501 35		
Mass. Broken Stone Co.	124 42		
John T. Scully	26 00		
		651 77	
Teaming, as per pay-roll		1,101 62	
Traps, Boston Double Catch Basin Co.		298 00	
Amounts carried forward		$31,970 76	$35,000 00

Sewers (**Construction**) — Continued.

Amounts brought forward		$31,970 76	$35,000 00
For Use of Engine, Geo. E. Worthen		70 00	
Use of Pump, E. R. Cheney		63 00	
Total			32,103 76
Balance unexpended			$2,896 24

Sewers (**Construction, Broadway**.)

Appropriation			$12,500 00
Transferred from Mass. Ave. Sewer			1,500 00
			$14,000 00
EXPENDED.			
For Labor, as per pay roll		$6,785 40	
Bricks:—			
D. Warren De Rosay	$163 12		
M. W. Sands	1,935 13		
		2,098 25	
Cement, Waldo Bros.		660 00	
Expressage		1 00	
Fuel, Coleman Bros.		64 00	
Gravel and sand:—			
John Doody & Co.	$38 50		
Thomas O'Hara	1 50		
		40 00	
Lumber:—			
E. D. Sawyer & Co.	$256 59		
Wm. H. Wood & Co.	8 27		
		264 86	
Milling, J. H. Keenan & Co.		5 06	
Oil, Whittier Hardware Co.		1 96	
Rent of Machine, Carson Trench Machine Co.		640 50	
Repairs of streets, Street Dept.		196 61	
Sewer pipe:—			
D. W. Lewis	$11 81		
Portland Stone Ware Co.	1,625 99		
		1,637 80	
Teaming, as per pay roll		524 74	
Total			$12,920 18
Balance unexpended			$1,079 82

Clay Lands.

Appropriation			$50,000 00
EXPENDED.			
For Labor, as per pay roll		$3,683 02	
Bricks, D. Warren De Rosay		1,180 66	
Cement, Waldo Bros.		669 50	
Lumber, John S. Clary		16 08	
Sand and gravel:—			
W. B. Mullen	$185 13		
Thos. O'Hara	30 00		
		215 13	
Sewer pipe:—			
D. W. Lewis	$25 19		
Portland Stone Ware Co.	645 04		
		670 23	
Stock and labor for Float:—			
J. H. Keenan & Co.		32 56	
Teaming, as per pay roll		401 50	
Total			6,868 68
Balance unexpended			$43,131 32
Amount expended by Sewer Department		$6,225 00	
Amount expended by Street Department		643 68	

Sewers (Construction, First Street.)

Appropriation			$7,500 00
EXPENDED.			
For labor, as per pay roll		$4,256 23	
Bricks, M. W. Sands		836 32	
Cement, Waldo Bros.		291 50	
Fuel, Coleman Bros.		75 70	
Lumber: —			
Geo. McQuesten & Co.	$18 54		
E. D. Sawyer & Co.	629 79		
Wm. H. Wood & Co.	33 33		
		681 66	
Mill work, J. H. Keenan & Co.		97 86	
Piles, John T. Scully & Bro.		218 71	
Sand, gravel, etc., John T. Scully & Bro.		259 50	
Amounts carried forward		$6,717 48	$7,500 00

Sewers (Construction, First Street — Continued.

Amounts brought forward		$6,717 48	$7,500 00
For Sewer pipe: —			
Greene & Co.	$72 30		
D. W. Lewis	208 30		
Portland Stone Ware Co.	78 23		
		358 83	
Teaming, as per pay roll		157 47	
Tools, hardware, etc., Burditt & Bynner		37 46	
Use of Engine, Geo. E. Worthen		226 00	
Total			$7,497 24
Balance unexpended			$2 76

Sewers, (Construction, Mass. Ave. Storm Relief.)

Appropriation			$13,045 04
Transferred to Broadway Sewer			1,500 00
			$11,545 04

EXPENDED.

For Labor, as per pay roll		$874 00	
Bricks, M. W. Sands		37 24	
Contract for building sewer:—			
Metropolitan Construction Co.		9,743 10	
Pipe, Portland Stone Ware Co.		669 06	
Repairs on Street, Street Department		103 77	
Teaming:—			
John Doody & Co.	$79 62		
Thomas O'Hara	38 25		
		117 87	
Total			$11,545 04

Sewers (Construction, Metropolitan Connections.)

Appropriation			$17,000 00

EXPENDED.

For Labor, as per pay roll		$6,288 98	
Bricks:—			
D. Warren De Rosay	$445 87		
M. W. Sands	347 18		
		793 05	
Amounts carried forward		$7,082 03	$17.000 00

Sewers (Construction, Metropolitan Connections) — Continued.

Amounts brought forward		$7,082 03	$17,000 00
For Cement:—			
W. G. Nash	$331 87		
Waldo Bros.	390 29		
		722 16	
Copper Floats, Coffin Valve Co.		217 00	
Expressage, Hayes Express		.50	
Frames, covers, etc.:—			
Barbour, Stockwell Co.	$302 50		
Mechanics Iron Foundry Co.	588 15		
		890 65	
Fuel, Coleman Bros.		168 05	
Gravel and Sand:—			
John Doody	$20 00		
Hugh Farrell	10 00		
John Gallivan	36 00		
Charles Linehan	43 20		
Thomas O'Hara	99 90		
		209 10	
Hardware:—			
Brock Bros.	$ 54		
Burditt & Bynner	5 10		
		5 64	
Iron work, Miller & Shaw		466 94	
Lumber:—			
J. H. Keenan & Co.	$61 07		
E. D. Sawyer & Co.	239 60		
W. H. Wood & Co.	307 09		
		607 76	
Piles, John T. Scully		161 78	
Pipe and Fittings:—			
Greene & Co.	$127 99		
D. W. Lewis	40 85		
Portland Stone Ware Co.	140 09		
Water Works	20 92		
		329 85	
Stone:—			
John Gallivan	$12 00		
Thomas O'Hara	19 50		
		31 50	
Amounts carried forward		$10,892 96	$17,000 00

Sewers (**Construction, Metropolitan Connections**) — Continued.

Amounts brought forward		$10,892 96	$17,000 00
For Teaming as per pay roll		427 54	
Use of Engine Pump, etc.:—			
E. R. Cheney	$384 00		
Geo. E. Worthen	436 00		
		820 00	
Total			12,140 50
Balance unexpended			$4,859 50

Sewers, (**Construction, Tannery Brook**).

Appropriation			$8,000 00

EXPENDED.

For Labor, as per pay roll		$2,434 73	
Appraising, M. L. Walton.		25 00	
Bricks, D. Warren DeRosay		181 26	
Castings, Barbour, Stockwell Co.		16 00	
Fuel, Coleman Bros.		8 00	
Lumber, Wm. H. Wood & Co.		67 42	
Sewer pipe:—			
D. W. Lewis	$265 68		
Portland Stone Ware Co.	810 65		
		1,076 33	
Teaming, as per pay roll		120 50	
Use of Engine, Geo. E. Worthen		24 00	
Use of Pump, E. R. Cheney		18 00	
Total			3,971 24
Balance unexpended			$4,028 76

Sewers (**Maintenance.**)

Appropriation	$18,000 00
Transferred from Contingent Fund	1,641 63
Amount carried forward	$19,641 63

Sewers (**Maintenance**) — Continued.

Amount brought forward			$19,641 63
RECEIVED.			
For covering stone	$2 00		
Dredging outlet to Bridge Street Sewer	1,148 86		
Gravel	48 50		
Manure	3 00		
Moving machine	46 00		
Old hose	36 36		
Rent	90 00		
Sanitary	10 00		
	$1,384 72		
EXPENDED.			
For Salaries of			
Supt., T. L. Pike	$1,700 00		
Clerk, Mary E. Rowen	375 00		
		$2,075 00	
Labor, as per pay roll		6,959 03	
Advertising, Cambridge Chronicle Co.		73	
Bags, Geo. G. Wright		1 50	
Bricks:—			
D. W. DeRosay	$108 75		
M. W. Sands	44 71		
		153 46	
Brooms, C. W. Carmen		13 20	
Canvas covers, Nolan Bros.		157 70	
Car-tickets, W. E. Street Railway Co.		50 00	
Carriage repairs:—			
F. Ivers & Son	$192 45		
Chas. Waugh & Co.	68 70		
		261 15	
Cement, Waldo Bros.		271 25	
Cleaning Catch-basins, John Horrigan		3,160 75	
Cordage, M. F. Whiton & Co.		7 71	
Connecting Drain, Mrs. A. F. Duncan		8 00	
Dredging, Old Colony Dredging Co.		1,840 52	
Expressage, Savage & Son		1 57	
Fuel, Coleman Bros.		39 00	
Gas, Cambridge Gas Light Co.		21 05	
Amounts carried forward		$15,021 62	$19,641 63

Sewers (Maintenance) — Continued.

Amounts brought forward		$15,021 62	$19,641 63
For Gravel and sand:—			
Charles Linehan	$10 80		
Thomas O'Hara	1 50		
John T. Scully	4 50		
		16 80	
Hardware, tools, repairs and supplies:—			
A. R. Bayley	$1 65		
Boston Rod Coupling Co.	25 00		
Brock Bros.	1 90		
Burditt & Bynner	567 25		
Edson Mfg. Co.	61 85		
Chas. H. Goldsmith	80 20		
Greene & Co.	32 98		
Edw. Kendall	10 00		
James Maitland	306 47		
D. C. Scranton	4 35		
Whittier Hardware Co.	94 51		
Wight & Scorgie	17 19		
		1,203 35	
Harness:—			
F. Ivers & Son	$57 00		
Wm. H. Roberts	23 85		
		80 85	
Hay, grain and straw, E. R. Luke & Co.		364 18	
Horse, Wm. Nokes		150 00	
Horse clipping, John Smith		6 00	
Horse-shoeing, John F. Gurry		130 00	
Hose and Rubber Goods:—			
American Rubber Co.	$67 32		
Boston Woven Hose Co.	165 23		
Conant Rubber Co.	28 00		
Robt. Josselyn	81 60		
		342 15	
Iron work, Miller & Shaw		278 88	
Ladder, C. W. H. Moulton & Co.		4 00	
Lumber:—			
E. D. Sawyer & Co.	$345 24		
Wm. H. Wood & Co.	198 17		
		543 41	
Amounts carried forward		$18,141 24	$19,641 63

Sewers (Maintenance) — Concluded.

Amounts brought forward		$18,141 24	$19,641 63
For Mill work:—			
J. H. Keenan & Co.	$109 12		
D. C. Scranton	62 48		
		171 60	
Oat-meal, Chas. James		15 25	
Oil, Standard Oil Co.		58 65	
Painting and whitewashing:—			
J. L. P. Ackers	$215 00		
J. W. Crocker	1 50		
		216 50	
Pipe:—			
J. O. Bullard	$34 79		
D. W. Lewis	319 39		
		354 18	
Pipe and labor, Water Works		5 02	
Printing, Stationery, etc.:—			
Cotton & Gould	$3 50		
John H. Ford	13 00		
Stationery Department	4 73		
		21 23	
Repairing Boots, J. H. Peters		6 30	
Repairing Drain:—			
Wm. F. Morrill	$10 00		
A. J. Raymond	22 75		
		32 75	
Sashes, A. A. Elston & Co.		1 00	
Shackle, sheave, etc., Boston & Lockport Block Co.		13 15	
Teaming, as per pay roll		604 76	
Total			$19,641 63

Sinking Funds (General.)

Appropriation			$85,765 00

EXPENDED.

For Salaries of			
Treasurer, Wm. W. Dallinger	$300 00		
Clerk, John McDuffie	25 00		
		$325 00	
Amounts carried forward		$325 00	$85,765 00

Sinking Fund (General) — Concluded.

Amounts brought forward	$325 00	$85,765 00
For Appropriation as required by City Ordinance for payment of debt, Commissioners of Sinking Funds	$85,400 00	
Rent, Boston Safe Deposit and Trust Co.	40 00	
Total		$85,765 00

Sinking Funds (Harvard Bridge Loan.)

Appropriation	$8,000 00

EXPENDED.

For payment of debt	$8,000 00

State Aid.

Appropriation	$23,500 00

RECEIVED.

From the Commonwealth of Massachusetts in reinbursement, in part, of the amount the city has advanced, in conformity to the laws of the State, to volunteers and their families, or other dependents of volunteers in the army and navy:—			
For military aid	$525 00		
State aid	12,130 00		
Burials of soldiers and sailors	1,164 85		
		$13,819 85	
Aid		225 09	
Money not called for on pay roll		173 00	
		$14,217 94	

EXPENDED.

For Salary of Clerk, Chas. L. Russell		$900 00	
State aid	$12,283 00		
Military aid	1,714 67		
Soldiers and Sailors aid	6,132 00		
		20,129 67	
Amounts carried forward		$21,029 67	$23,500 00

State Aid — Continued.

Amounts brought forward		$21,029 67	$23,500 00
For Aid:—			
City of Boston	$64 29		
City of Fall River . . .	17 50		
City of Holyoke . . .	46 25		
Town of Leominster . .	90 00		
		218 04	
Ambulance		3 00	
Board and Care:—			
Cambridge Almshouse .	$151 04		
Danvers Lunatic Hospital	501 89		
Medfield Insane Asylum .	116 00		
Taunton Lunatic Hospital	98 89		
Worcester Insane Asylum	169 92		
Worcester Lunatic Hospital	218 22		
		1,255 96	
Burials:—			
John W. Coveney . . .	$35 00		
D. P. Danehy	35 00		
Jos. J. Kelly	105 00		
H. D. Litchfield	105 00		
Judson Litchfield . . .	35 00		
C. H. Lockhart	35 00		
Jas. F. Mullen	35 00		
Wm. Ross & Son . . .	35 00		
		420 00	
Carriage hire, M. J. Fairbanks		3 00	
Car tickets, W. E. St. Railway Co. . .		15 00	
Fuel, Geo. M. Smith		92 90	
Stationery and Printing:—			
Cotton & Gould	$3 20		
Powell & Co.	57 50		
Rhoades & Co.	2 00		
Stationery Dept.	13 06		
		75 76	
Typewriting, Eben W. Pike		5 00	
Supplies:—			
A. R. Bayley & Co. . .	$ 45		
Geo. A. Davis	73 00		
Amounts carried forward . .	$73 45	$23,118 33	$23,500 00

State Aid — Concluded.

Amounts brought forward . .	$73 45	$23,118 33	$23,500 00
A. J. Holmes	5 00		
John O'Gara	3 00		
C. L. Russell	6 15		
Spencer Market	3 10		
		90 70	
Total			23,209 03
Balance unexpended			$290 97

Stationery and Printing.

Appropriation			$3,000 00
RECEIVED.			
From sundry departments for supplies		$1,110 91	
EXPENDED.			
For Advertising:—			
Cambridge Chronicle Co. .	$67 01		
James Cox	12 00		
F. Stanhope Hill	11 50		
		90 51	
Binding Documents:—			
H. O. Houghton & Co. .	$20 60		
J. H. H. McNamee . . .	58 50		
		79 10	
Examination of bids and bills:—			
Charles Walker		20 00	
Postage, F. M. Small		1,026 00	
Printing:—			
Cambridge Chronicle Co.	$119 52		
Cambridge Co-operative Society	1,108 60		
John Cashman & Co. . .	79 80		
James H. Cox	25 50		
J. Frank Facey	8 25		
T. F. Martin	10 00		
		1,351 67	
Amounts carried forward		$2,567 28	$3,000 00

Stationery and Printing — Concluded.

Amounts brought forward		$2,567 28	$3,000 00
For Stationery supplies:—			
Cotton & Gould	$318 75		
D. K. Franklin	4 20		
Thorp & Martin Co.	49 56		
		372 51	
Total			$2,939 79
Balance unexpended			$60 21

Street Department (Bridges).

Appropriation	$4,000 00
Transferred from Contingent Fund	266 34
	$4,266 34

EXPENDED.

For Salaries of Drawtenders:—			
Chas. A. Bassett	$305 00		
Wm. Burgess	880 00		
Martin Flaherty	1,040 00		
Nath'l M. Neale	599 04		
John A. White	147 85		
		2,971 89	
Labor, as per pay roll		545 06	
Hardware, tools, etc:—			
Burditt & Bynner	$4 25		
Rawson & Morrison	1 20		
F. A. White	33 09		
		38 54	
Iron work, Miller & Shaw		39 08	
Lumber:—			
John S. Clary	$129 06		
Geo. W. Gale Lumber Co.	129 99		
Geo. McQuesten & Co.	6 91		
Wm. H. Wood & Co.	382 41		
		648 37	
Oakum, J. Baker & Co.		7 50	
Oil, Kimball, Freed & Co.		15 90	
Total			$4,266 34

Street Department (New City Stable and Yard, Ward Five)

Appropriation			$44,000 00
EXPENDED.			
For Carpentry: —			
W. Fillmore & Co.	$227 89		
W. H. Norris	38 12		
		$266 01	
Contract for excavating and building foundation, Charles Linehan		1,106 25	
Hardware and Supplies: —			
Brock Bros.	$7 60		
F. A. White	29 99		
		37 59	
Labor, as per pay roll		489 73	
Land, A. H. Hews		11,000 00	
Lumber, cement:—			
John S. Clary	$183 75		
George W. Gale Lumber Co.	218 60		
Wm. H. Wood & Co.	64 00		
		466 35	
Mason work, Stearns & Waterman		44 20	
Plans, etc., George Fogerty		418 12	
Roof repairs, John J. Blevins		122 82	
Sundries		4 07	
Total			13,955 14
Balance unexpended			$30,044 86

Street Department (Cleaning).

Appropriation			$23,000 00
EXPENDED.			
For Foremen:—			
James Ferguson	$36 00		
John Reilley	120 00		
John M. Thayer	72 00		
John A. White	84 00		
		$312 00	
Labor, as per pay roll		17,962 07	
Amounts carried forward		$18,274 07	$23,000 00

Street Department (Cleaning) — Concluded.

Amounts brought forward		$18,274 07	$23,000 00
For Supplies:—			
Ames Plow Co.	$30 89		
Burditt & Bynner	123 49		
Edson Mfg. Co.	80 34		
Hickory Broom Fibre Co.	77 50		
A. J. Jones	1 75		
Miller & Shaw	4 88		
Geo. Tyler & Co.	9 50		
Bruce R. Ware & Co.	7 26		
W. F. Wheeler	65 00		
		400 61	
Teaming, as per pay roll		4,325 18	
Total			22,999 86
Balance unexpended			$ 14

Street Department (Collection of Ashes).

Appropriation	$19,000 00
Transferred from Contingent Fund	348 26
	$19,348 26

EXPENDED.

For Labor, as per pay roll		$16,385 75	
Hardware, tools, etc.:—			
Ames Plow Co.	$25 00		
F. A. White	1 50		
		26 50	
Harness:—			
Ames Plow Co.	$52 00		
W. H. Bustin & Son.	6 50		
		58 50	
Hay and Grain:—			
Otis S. Brown & Co.	$313 16		
Lord & Webster	451 18		
Merrill & Glazier	351 00		
Scott & Bridge	292 88		
H. H. Turner	197 93		
George G. Wright	403 59		
		2,009 74	
Amounts carried forward		$18,480 49	$19,348 26

Street Department (Collection of Ashes) — Concluded.

Amounts brought forward		$18,480 49	$19,348 26
For Horse and Cart Covers:—			
Geo. T. Hoyt & Co.		94 44	
Horses:—			
P. H. Dardis	$455 00		
Thomas F. Maher	85 00		
Wm. Nokes	200 00		
		740 00	
Horse-shoeing, Wm. Balmer		19 25	
Lumber, Wm. H. Wood & Co.		4 08	
Printing, Cambridge Chronicle Co.		10 00	
Total			$19,348 26

Street Department (Construction).

Boylston Street.

Appropriation	$9,118 50
Additional Appropriation	4,440 00
	$13,558 50

EXPENDED.

For Labor, as per pay roll		$4,838 20	
Bricks, M. W. Sands		546 87	
Carpentry, W. Fillmore & Co.		673 93	
Cement, George W. Gale Lumber Co.		8 25	
Gravel:—			
James Culhane	$50 00		
Dennis J. O'Brien	8 50		
Josephine E. Stone	33 00		
		91 50	
Mason Work, Thomas Leahy & Son		73 31	
Stone:			
Broken Stone, Mass. Broken Stone Co.	$189 38		
Edgestone etc., S. & R. J. Lombard	1510 78		
Field-stone, Sundry persons	2098 54		
Amounts carried forward	$3,798 70	$6,232 06	$13,558 50

Street Department (Construction) — Concluded.

Boylston Street

Amounts brought forward . .	$3,798 70	$6,232 06	$13,558 50
For Flagging, Chas. McMahon	201 01		
Weighing, Wm. Maloney	64 52		
		4,064 23	
Teaming, as per pay roll		2,803 52	
Total			$13,099 81
Balance unexpended			$458 69

Street Department (Construction).

Charles and Vine Streets.

Appropriation			$2,436 70
EXPENDED.			
For Labor, as per pay roll		$484 00	
Stone:—			
John H. Cox	$31 25		
Mass. Broken Stone Co. .	682 54		
Charles McMahon . . .	454 75		
W. E. Street Railway Co.	83 75		
		1,252 29	
Teaming, as per pay roll		698 64	
Total			2,434 93
Balance unexpended			$1 77

Street Department (Construction).

Dunster Street.

Appropriation		$315 00
EXPENDED.		
For Labor, as per pay roll	$170 00	
Stone, circle, S. & R. J. Lombard . . .	7 81	
Total		177 81
Balance unexpended		$137 19

Street Department (Construction).

Eliot Street.

Appropriation			$3,367 00
EXPENDED.			
For Labor, as per pay roll		$678 24	
Cement, Geo. W. Gale Lumber Co.		5 00	
Gravel:—			
James Culhane	$25 00		
Dennis J. O'Brien	4 00		
Joshua Stone	98 10		
		127 10	
Stone:—			
Broken Stone, Mass. Broken Stone Co.	$297 21		
Edgestone, etc., S. & R. J. Lombard	323 38		
Field Stone, Sundry persons	395 35		
Weighing, Wm. Maloney	12 16		
		1,028 10	
Teaming, as per pay roll		454 51	
Total			2,292 95
Balance unexpended			$1,074 05

Street Department (Construction).

First Street.

Appropriation			$30,000 00
RECEIVED.			
For Labor and materials		$290 90	
EXPENDED.			
For Labor, as per pay roll		$7,016 25	
Gravel, Wm. B. Mullen		2,088 71	
Stone:—			
Edgestone, S. & R. J. Lombard	$1,698 30		
Granite Flagging, Chas. McMahon	3,363 78		
Amounts carried forward	$5,062 08	$9,104 96	$30,000 00

Street Department (Construction) — Continued.

First Street.

Amounts brought forward . .	$5,062 08	$9,104 96	$30,000 00
For Paving Blocks, S. & R. J.			
Lombard	1,462 69		
Chas. McMahon	12,331 35		
		18,856 12	
Teaming, as per pay roll		2,038 49	
Total			$29,999 57
Balance unexpended			$ 43

Street Department (Construction).

McDonald Street.

Appropriation			$9,833 42
EXPENDED.			
For Labor, as per pay roll		$4 088 91	
Gravel:—			
John McGinnis	$252 75		
Josephine E Stone . . .	410 25		
		663 00	
Stone:—			
Edgestone, S. & R. J.			
Lombard	$6 94		
Field stone, Sundry persons	1,328 81		
Gutter Stone, S. & R. J.			
Lombard	1,064 18		
Weighing, Wm. Maloney	40 88		
		2,440 81	
Teaming, as per pay roll		2,637 88	
Total			9,830 60
Balance unexpended			2 82

Street Department (Construction).

Seventh Street

Appropriation			$1,075 00
EXPENDED.			
For Labor, as per pay roll		$316 98	
Gravel:—			
John McGinnis	$7 50		
Joshua Stone	55 25		
		62 75	
Amounts carried forward		$379 73	$1,075 00

Street Department (Construction) — Concluded.

Seventh Street.

Amounts brought forward		$379 73	$1,075 00
For Stone:—			
P. J. Keenan	$10 00		
Mass. Broken Stone Co.	231 66		
Chas. McMahon	11 25		
		252 91	
Teaming, as per pay roll		438 75	
Total			1,071 39
Balance unexpended			$3 61

Street Department (Maintenance).

Appropriation			$70,000 00
Transferred from Contingent Fund			95 98
			$70,095 98
RECEIVED.			
For Ashes, scrapings, etc.	$1,880 51		
Chopping blocks	75		
Fence	9 72		
Horse-shoeing	5 70		
Impounding horses	28 50		
Labor and materials	810 68		
Manure	100 00		
Old harness	2 00		
Stone	59 38		
Stone dust	24 00		
Wood	75 50		
	$2,996 74		
EXPENDED.			
For Salaries of			
Supt., Chas. A. Brown	$2,000 00		
Foreman, John A. Sheridan	1,252 00		
Clerks:—			
Geo. M. Clukas	1,248 00		
Florence J. Olsson	110 75		
Georgie W. Sanborn	99 75		
		$4,710 50	
Amounts carried forward		$4,710 50	$70,095 98

Street Department (Maintenance) — Continued.

Amounts brought forward		$4,710 50	$70,095 98
For Labor, as per pay roll		32,996 76	
Advertising, Cambridge Chronicle Co. .		9 60	
Bicycle, Wm. Read & Sons		50 00	
Brooms, Asa Duren		69 93	
Bunting and flags, Chapman Carriage Co.		12 00	
Carpentry, C. S. Newcomb		47 73	
Carriage hire:—			
J. Callahan	$13 00		
F. J. Coulter	12 00		
Lake & Moynahan . . .	6 00		
Richdale Ave. Stables . .	13 00		
Whiting & Smith . . .	4 00		
		48 00	
Carriage and Wagon repairs:—			
Chapman Carriage Co. .	$142 50		
A. J. Jones	28 36		
J. Lacas	7 00		
Chas. Waugh & Co. . .	52 95		
		230 81	
Car tickets, W. E. Street Railway Co. .		25 00	
Cash for sundries, C. A. Brown. . . .		57 09	
Cordage, Sewell & Day Cordage Co. . .		7 52	
Directories, E. F. Hunt & Co.		9 00	
Disinfectants, Read, Holliday & Sons . .		26 52	
Electrical work, Holtzer-Cabot Elec. Co. .		3 25	
Expressage:—			
Hatch & Co.	$ 80		
Savage & Son	3 10		
		3 90	
Fuel:—			
Baker, Hunnewell Co. . .	$1,610 28		
H. Wellington Co. . . .	66 90		
		1,677 18	
Gravel:—			
Mrs. F. S. Chard . . .	$5 25		
John McGinnis	90 25		
Josephine E. Stone . . .	215 25		
		310 75	
Amounts carried forward		$40,295 54	$70,095 98

Street Department (Maintenance) — Continued.

Amounts brought forward		$40,295 54	$70,095 98
For Hardware, tools, etc.:—			
Ames Plow Co.	160 58		
Barbour, Stockwell Co.	2 51		
Bay State Metal Works	12 00		
Brock Bros.	78 76		
Burditt & Bynner	86 92		
Chapman Carriage Co.	29 68		
Dodge, Haley & Co.	508 49		
W. A. Easter	50 97		
F. E. Fitts Mfg. Co.	19 76		
Estate of A. J. Jones	18 08		
Lowell Axle Oiler Co.	10 00		
D. J. Sullivan	17 70		
F. A. White	68 94		
Whittier Hardware Co.	2 95		
		1,067 34	
Harness etc:—			
Ames Plow Co.	$30 53		
W. H. Bustin & Son	12 00		
Jas. Forgie & Son	318 06		
F. Ivers & Son	39 00		
Hugh McCaffrey	225 37		
Thomas McMahon	162 65		
		787 61	
Hay and Grain:—			
P. H. Dardis	$292 90		
C. F. & G. W. Eddy	265 66		
Lord & Webster	1270 63		
Merrill & Glazier	1335 00		
Scott & Bridge	608 57		
H. H. Turner	662 70		
George G. Wright	758 26		
		5193 72	
Horses, Wm. Nokes		725 00	
Horse clipping, John Smith		3 00	
Horse, shoeing:—			
Wm. Balmer	$52 50		
W. A. Easter	10 88		
John McMahon	1 00		
		$64 38	
Amounts carried forward		$48,136 59	$70,095 98

Street Department (Maintenance) — Continued.

Amounts brought forward		$48,136 59	$70,095 98
For Lighting, Cambridge Electric Light Co.		240 02	
Lumber:—			
Geo. W. Gale Lumber Co.	$51 72		
Geo. Mc Questen & Co.	9 90		
Henry J. Winde	95 42		
Wm. H. Wood & Co.	74 14		
		231 18	
Mill work, Ira G. Hersey		56 62	
Oatmeal, Geo. H. Cheever		6 00	
Oils, paints etc:—			
John H. Fuller	$128 50		
Kimball, Freed & Co.	51 80		
Manufacturers Oil Co.	59 70		
J. L. Moseley	2 50		
Standard Lubricant Co.	27 90		
Standard Oil Co.	61 32		
Rust & Richardson	7 03		
Vacuum Oil Co.	131 04		
Wadsworth, Howland & Co.	7 35		
		477 14	
Packing:—			
Boston Woven Hose Co.	$15 00		
Gould Packing Co.	4 80		
Knowlton Packing Co.	15 08		
		34 88	
Paving and materials, City of Somerville		242 95	
Plumbing, Moynahan & Co.		50 23	
Powder, American Powder Mills		5 60	
Prof. Attendance, Dr. A. L. Norris		4 00	
Refreshments:—			
F. Brupbacher	$10 00		
M. R. Jones	8 00		
Mansion House	12 00		
		30 00	
Rent, Cambridge Gas Light Co.		275 00	
Repairing Flag-pole, David Cass		9 00	
Repairing Flag, Mrs. G. E. Richardson		1 75	
Sign, Hill Street Sign Co.		2 00	
Sealing Fees, A. F. Roberts		1 18	
Sponges, G. H. Worcester & Co.		56 80	
Amounts carried forward		$49,860 94	$70,095 98

Street Department (Maintenance) — Continued.

Amounts brought forward		$49,860 94	$70,095 98
For Stationery and Printing:—			
Cambridge Chronicle Co.	$18 75		
Cambridge Co-operative Society	17 08		
Cotton & Gould	69 50		
H. D. Campbell & Co. .	3 44		
James H. Cox	61 25		
L. W. Poole	75		
Stationery Dept.	46 16		
		216 93	
Steam Rollers, Repairs, etc.:—			
Barbour, Stockwell & Co.	$83 40		
Boston Woven Hose Co. .	6 38		
W. R. Fleming & Co. . .	193 45		
Wm. H. Gallison . . .	16 35		
The O. S. Kelly Co. . .	133 96		
Edw. Kendall & Sons . .	16 35		
Miller & Shaw	122 59		
Wm. C. Oastler	19 50		
G. J. Roller	4 75		
		596 73	
Stone:—			
Broken Stone, Mass. Broken Stone Co. . .	$171 82		
Chip-stone, W. J. McCarty	395 55		
Cracked stone, Bellamy & Harris	39 08		
Field stone, sundry persons	13,265 37		
Gutter stone, S. & R. J. Lombard	7 22		
Round stone, W. E. St. Railway Co.	15 32		
Weighing, Wm. Maloney	219 86		
		14,114 22	
Stone Crushers:—			
Barbour, Stockwell & Co.	$86 72		
Bay State Belting Co. . .	2 35		
E. W. Bigelow & Co. . .	35 88		
Amounts carried forward . .	$124 95	$64,788 82	$70,095 98

Street Department (Maintenance) — Concluded.

Amounts brought forward	$124 95	$64,788 82	$70,095 98
Boston Belting Co.	83 82		
Wm. Campbell & Co.	60 66		
Wm. H. Gallison	57 58		
J. H. Houghton	16 30		
Edw. Kendall & Sons	107 18		
Miller & Shaw	261 12		
S. C. Nightingale & Childs	769 63		
Plomo Specialty Mfg. Co.	8 75		
Taylor Iron & Steel Co.	130 68		
		1,620 67	
Sundry Supplies:—			
J. H. Corcoran & Co.	$3 10		
A. C. Curtis	11 39		
Frank P. Merrill	4 90		
Useful Novelty Co.	34 80		
		54 19	
Teaming, as per pay-rolls		3,183 70	
Telephone rent and tolls		420 35	
Testing boiler, Edw. Kendall & Sons		10 40	
Typewriter repairs and supplies:—			
W. M. Belcher & Co.	$8 75		
Geo. H. Ritcher & Co.	2 00		
		10 75	
Whip, Darlings Whip Mfy.		1 60	
Window sashes, Cutter & Parker		5 50	
Total			$70,095 98

Street Department (Paving).

Edgestones and Sidewalks.

Appropriation		$40,000 00
RECEIVED.		
For Edgestone and sidewalk assessment	$16,761 91	
Labor and materials	834 22	
	$17,596 13	
EXPENDED.		
For Labor, as per pay-rolls	$14, 710 33	
Bricks, M. W. Sands	9,062 08	
Amounts carried forward	$23,772 41	$40,000 00

Street Department (Paving) — Concluded.

Amounts brought forward		$23,772 41	$40,000 00
For Gravel:—			
David O'Mara	$94 38		
Josephine E. Stone	229 25		
Jeremiah Sullivan	80 58		
Peter Tumilty	40 42		
		444 63	
Lanterns, Ames Plow Co.		45 00	
Lumber:—			
Geo. W. Gale Lumber Co.	$97 77		
Wm. H. Wood & Co.	18 10		
		115 87	
Oil, Standard Oil Co.		43 58	
Printing, Cambridge Chronicle Co.		3 00	
Rebate of assessment, L. J. Luke		6 18	
Rebate on stone sidewalks:—			
W. A. Murtfeldt		372 37	
Recutting stone, Thomas Joy		442 55	
Repairing tools:—			
Chapman Carriage Co.	$24 83		
Wight & Scorgie	22 48		
		47 31	
Stone, edgestone and flagging:—			
S. & R. J. Lombard	$10,148 91		
Chas. McMahon	1,263 37		
Round stone, W. E. Street Railway Co.	314 15		
		11,726 43	
Stone sidewalk, Simpson Bros.		135 44	
Teaming, as per pay roll		2,648 25	
Tools, hardware, etc.:—			
Ames Plow Co.	$17 98		
Burditt & Bynner	87 30		
H. H. Harvey	33 14		
F. A. White	3 68		
Wm. T. Wood & Co.	48 00		
		190 10	
Twine, etc., Bruce R. Ware & Co.		6 00	
Total			39,999 12
Balance unexpended			$ 88

Street Department (Resurfacing Webster Avenue).

Appropriation		$6,000 00
EXPENDED.		
For Labor, as per pay-roll	$2,321 73	
Stone, Mass. Broken Stone Co.	2,486 40	
Teaming, as per pay-rolls	1,191 37	
Total		5,999 50
Balance unexpended		$ 50

Street Department (Watering).

Appropriation			$30,000 00
Transferred to Contingent Fund			1,500 00
			$28,500 00
RECEIVED.			
For Assessments	$7,766 39		
Collections	1,158 44		
	$8,924 83		
EXPENDED.			
For Salary of Supt. Chas. Mc Hugh		$987 00	
Clerical Assistance		96 25	
Bicycle, Wm. Read & Sons		50 00	
Bicycle Saddle, J. L. Moseley		4 00	
Carts and repairs:—			
Abbott-Downing Co.	$1077 75		
Barbour, Stockwell & Co.	36 97		
Duff Spring Co.	67 27		
A. L. Jones	6 00		
J. L. & H. K. Potter	1305 90		
Chas. Waugh & Co.	441 00		
Labor, as per pay rolls	1374 87		
		4309 76	
Hardware, tools and supplies:—			
Boston Woven Hose Co.	56 07		
Burditt & Bynner	6 53		
Dodge, Haley & Co.	231 86		
Wm. H. Gallison	1 25		
F. A. White	7 00		
		302 71	
Amounts carried forward		$5,749 72	$28,500 00

Street Department (Watering) — Concluded.

Amounts brought forward		$5,749 72	$28,500 00
For Horses:—			
P. H. Dardis	40 00		
Wm. Nokes	200 00		
		240 00	
Lumber:—			
Geo. W. Gale Lumber Co.	16 06		
Henry J. Winde	263 84		
		279 90	
Milling, Ira G. Hersey		17 40	
Paints, Oil etc:—			
Burditt & Binner	659 94		
Wadsworth Howland & Co.	9 40		
		669 34	
Rebate on Assessment, Harvard University		3 68	
Sprinkling, as per pay rolls		21,489 81	
Stationery & Printing:—			
H. D. Campbell & Co.	10 00		
Cotton & Gould	20 50		
Frost & Adams	1 35		
		31 85	
Total			28,481 70
Balance unexpended			18 30

Treasury Department.

Appropriation			$14,000 00
RECEIVED.			
For Fees from sundry persons		$1,947 01	
EXPENDED.			
For salaries of			
City Treasurer:—			
Wm. W. Dallinger	$3,000 00		
Clerks:—			
E. G. Stevens	1,408 50		
E. J. Howlett	1,252 00		
J. H. Webber	1,043 33		
C. H. Dodge	939 00		
Lizzie E. Estes	782 50		
Amounts carried forward	$8,425 33		$14,000 00

Treasury Department — Concluded.

Amounts brought forward . .	$8,425 33		$14,000 00
Philip B. Dallinger . . .	290 00		
Temporary Assistants . .	951 23		
		$9,666 56	
Advertising:—			
Boston Daily Advertiser .	$26 63		
Combridge Chronicle Co. .	88 95		
		115 58	
Bag, W. W. Winship		9 00	
Carriage hire, M. J. Fairbanks		582 00	
Car-tickets, W. E. St. Railway Co. . .		35 00	
Commissions for Collecting Taxes:—			
Joseph Fox	$591 56		
Warren Ivers	771 55		
		1,363 11	
Directories:—			
E. F. Hunt & Co. . . .	$3 00		
Sampson, Murdock & Co.	5 00		
		8 00	
Postage, F. M. Small		1,407 20	
Recording Deeds, Charles B. Stevens . .		5 60	
Stationery and Printing:—			
Cambridge Chronicle Co.	$150 27		
Cotton & Gould	125 95		
James H. Cox	157 25		
John H. Ford	148 25		
Stationery Dept. . . .	32 39		
		614 11	
Stamps, pad and ink, L. W. Poole . . .		14 05	
Subscriptions:—			
F. L. Beunke	$6 00		
Cambridge Chronicle Co.	2 75		
J. L. Daggett	1 00		
		9 75	
Telephone rent and tolls		165 50	
Total			13,995 46
Balance unexpended			$4 54

Water Works (Construction).

Appropriation			$20,000 00
RECEIVED.			
For Gravel		$20 00	
Old Iron		1 00	
		$21 00	
EXPENDED.			
For Advertising:—			
Cambridge Chronicle Co.	$5 75		
Boston Daily Advertiser	48 13		
		$53 88	
Castings, fittings and hydrants:—			
Barbour, Stockwell Co.	$25 15		
Davis & Farnum Mfg. Co.	27 20		
Holyoke Hydrant and Iron Works	471 20		
Ludlow Valve Mfg. Co.	840 36		
Norwood Eng. Co.	29 45		
The A. P. Smith Mfg. Co.	557 37		
Walworth Mfg. Co.	199 50		
		2,150 23	
Cash for traveling expenses, E. C. Brooks		31 00	
Executions of Court:—			
Wm. B. James	$300 00		
Carrie A. R. Stearns	425 00		
		725 00	
Expert, Chas. H. Morse		100 00	
Freight:—			
Schooner, W. R. Chester	$203 36		
" Leonora	280 39		
" Nightingale	133 45		
Alfred Winsor & Son Assignees	227 60		
		844 80	
Labor, as per pay roll		6,821 50	
Lead, Chadwick Lead Works		1,000 52	
Lumber, Geo. W. Gale Lumber Co.		45 09	
Meters:—			
Hersey Mfg. Co.	$170 40		
Union Meter Co.	14 00		
		184 40	
Amounts carried forward		$11,956 42	$20,000 00

Water Works (Construction) — Concluded.

Amounts brought forward		$11,956 42	$20,000 00
For Paving, Asphalt Paving Co.		40 85	
Painting and glazing, Chas. A. Sawyer		2 25	
Printing, Cambridge Chronicle Co.		22 50	
Pipe, Warren Foundry & Machine Co.		5,105 01	
Stone, Mass. Broken Stone Co.		180 84	
Teaming, as per pay roll		2,503 98	
Tools:—			
Ames Plow Co.	$ 60		
James Maitland	64 08		
F. A. White	18 00		
		82 68	
Wedges, D. C. Scranton		8 00	
Total			19,902 53
Balance unexpended			$97 47

Water Works (Construction).

Fresh Pond Land.

Appropriation		$65,000 00
Transferred to Fresh Pond Reservoir	$10,000 00	
Payson Park Reservoir	50,000 00	
		60,000 00
		$5,000 00
RECEIVED.		
For House, stable etc.,	$300 00	
EXPENDED.		
For Appraisal, John Mahady	$50 00	
Copies of Case, County of Middlesex	48 50	
		98 50
		$4,901 50

Water Works (Construction).

Fresh Pond Reservoir.

Appropriation		$56,000 00
Transferred from Fresh Pond Land		10,000 00
		$66,000 00
RECEIVED.		
For Premium on Bonds	$5,396 79	
Amount carried forward		$66,000 00

Water Works (Construction) — Continued.

Fresh Pond Reservoir.

Amount brought forward			$66,000 00
EXPENDED.			
For Labor, as per pay roll		$33,947 62	
Base and grate, Concord Foundry Co. .		31 50	
Car tickets, W. E. Street Railway Co. .		25 00	
Cash, C. B. Parker		52	
Damages:—			
John A. Mooney . . .	$100 00		
John Coughlan	3,377 33		
		3,477 33	
Expressage, Savage & Son		1 90	
Fuel:—			
Coleman Bros.	$2 10		
Richardson & Bacon . .	3 00		
		5 10	
Freight		9 24	
Gravel:—			
Josephine E. Stone . . .	$261 50		
Joshua Stone.	11 25		
		272 75	
Horse, P. H. Dardis		175 00	
Horse-shoeing, Wm. Bell		4 50	
Hose, etc., Boston Woven Hose Co. . .		50 25	
Ladder, C. W. H. Moulton & Co. . . .		12 00	
Landscape Architects:—			
Olmstead, Olmstead & Eliot	$2,455 59		
French & Bryant . . .	1,848 49		
		4,304 08	
Lumber, etc.:—			
Geo. W. Gale Lumber Co.	$47 41		
M. E. Rideout & Co. . .	71 99		
		119 40	
Meters, Hersey Mfg. Co.		33 60	
Oatmeal, H. M. Grant		6.50	
Painting, etc., Chas. A. Sawyer		17 32	
Plants and shrubs:—			
Edw. Gillett	$283 50		
Wm. H. Harrison & Son .	10 50		
Shady Hill Nurseries . .	59 75		
		353 75	
Amounts carried forward		$42,847 36	$66,000 00

Water Works (Construction) — Concluded.

Fresh Pond Reservoir.

Amounts brought forward		$42,847 36	$66,000 00
For Pipe and fittings:—			
D. W. Lewis	$183 37		
McNeal Pipe and Foundry Co.	750 31		
Walworth Mfg. Co.	8 48		
Warren Foundry and Machine Co.	1,618 67		
		$2,560 83	
Stone:—			
S. & R. J. Lombard	$39 48		
Mass. Broken Stone Co.	128 34		
Sundry persons	702 72		
		870 54	
Teaming, as per pay roll		19,439 79	
Tools and repairs:—			
Ames Plow Co.	$65 76		
Brock Bros.	2 30		
Burditt & Bynner	45 07		
Burditt & Williams	3 37		
M. A. Carpenter	8 00		
Chas. H. Goldsmith	1 00		
S. C. Higgins	8 65		
James Maitland	125 74		
Walworth Mfg. Co.	2 10		
F. A. White	11 35		
		273 34	
Total			$65,991 86
Balance unexpended			$8 14

Water Works (Construction).

Hobbs Brook Reservoir.

Appropriation		$411,000 00
RECEIVED.		
For Grass	$100 00	
Premium on bonds	20,217 00	
Rebate on pay roll	19 50	
	20,336 50	
Amount carried forward		$411,000 00

Water Works (Construction) — Continued.

Hobbs Brook Reservoir.

Amount brought forward			$411,000 00
EXPENDED.			
For Advertising:—			
Boston Herald Co. . . .	$88 00		
Cambridge Chronicle Co.	2 33		
Engineering News Pub. Co.	40 40		
Engineering Record . .	30 00		
Waltham Daily Tribune .	23 25		
		$183 98	
Ambulance fee, Chas. W. Dailey . . .		15 00	
Barge hire, John Nixon		7 00	
Blue prints and photo supplies:—			
Benj. French & Co. . .	$6 72		
Frost & Adams	5 25		
E. L. Sanderson	2 44		
		14 41	
Board:—			
Cambridge Hospital . .	$104 26		
Waltham Hospital . . .	12 86		
		117 12	
Carriage repairs, M. King & Co. . . .		11 00	
Car tickets, Fitchburg R. R. Co. . . .		37 50	
Cash expended:—			
W. H. Harding	$20 76		
L. M. Hastings	4 76		
Harry L. Lincoln . . .	2 42		
W. H. Tuck	96 04		
		123 98	
Contracts for excavating:—			
Gennaro, Long & Little	12,924 00		
Extra work	108 97		
Jos. D. Gennaro . . .	35,103 27		
Paul S. King, Assignee Standard Construction Co.	50,373 00		
Extra work	32 10		
T. W. Kinser & Sons . .	103,697 92		
Auguste Saucier . . .	21,312 09		
Frank X. Saucier . . .	39,652 82		
		263,204 08	
Amounts carried forward		$263,714 07	$411,000 00

Water Works (Construction) — Continued.

Hobbs Brooks Reservoir.

Amounts brought forward		$263,714 07	$411,000 00
For Damages awarded and suits settled:—			
Catherine Bean	$555 50		
Chas. E. Brown, *et als*	11,503 85		
Chas. S. Bruce	5,000 00		
Lawrence Donlan	3,200 00		
Thos. B. Griggs	3,000 00		
Helen Haseltine	16,000 00		
John J. Jurada	216 43		
John Kennedy	12,221 00		
Chas. M. Parker and Lowell Clarke	3,042 47		
Thos. H. Rhoades	14,565 48		
		69,304 73	
Fuel, G. F. Frost		31 85	
Hay, grain, etc., Geo. B. Pope & Co.		120 00	
Horse-shoeing, P. Larkin		13 25	
Iron work, Smith-Carleton Iron Co.		367 00	
Inspection of Works:—			
Carriage hire:—			
M. J. Fairbanks	$37 00		
Grafton E. Kirwin	368 50		
John Nixon	6 00		
W. J. Richardson	10 00		
Refreshments	38 65		
		460 15	
Labor, as per pay roll		19,193 46	
Labor, Maniele Fanduschi		22 12	
Labor on patterns, Walter F. Norman		130 40	
Lumber:—			
Buttrick Lumber Co.	$65 32		
Mrs. Catherine Sullivan	30 00		
		95 32	
Mill work, Libby & Larcom		7 60	
Photographs and engravings:—			
Cambridge Chronicle Co.		25 00	
Pipe, G. F. Frost		51 41	
Pipe and castings:—			
Davis & Farnum Mfg. Co.		237 48	
Amounts carried forward		$353,773 84	$411,000 00

Water Works (Construction) — Continued.

Hobbs Brook Reservoir.

Amounts brought forward		$353,773 84	$411,000 00
For Plumbing, Fred H. Kirwin		24 20	
Removing night soil, Totten Bros.		56 80	
Reporting and stenography: —			
Bacon & Burpee	$29 40		
Margaret M. Eccles	60 00		
A. H. French	29 00		
Rogers & Jones	351 63		
		470 03	
Services of city solicitor, Law Dept.		2,100 00	
Services of experts, etc.: —			
C. S. Bruce	$125 00		
E. C. Bumpus *et als*	250 00		
L. B. Clark, M. D.	25 00		
Dean & Main	393 62		
Wm. B. Durant	51 75		
George Flint	300 00		
Clarence F. French	93 05		
S. S. Gleason	300 00		
J. L. Nason	600 00		
W. F. Rooney	90 00		
Leonard A. Saville	40 00		
Shattuck & Munroe	800 00		
George O. Shattuck	1,250 00		
E. P. Smith	307 00		
John A. Tolman	11 80		
Walter Wellington	40 00		
Dr. Edward S. Wood	30 00		
		4,707 22	
Stationery and printing: —			
Cambridge Co-operative Society	$6 25		
George E. Crosby & Co.	53 50		
Frost & Adams	17 00		
		76 75	
Steel mill, Williams Manufacturing Co.		30 00	
Surveying land, W. T. Ross		54 00	
Sundries		23 76	
Amounts carried forward		$361,316 60	$411,000 00

Water Works (Construction) — Concluded.

Hobbs Brook Reservoir.

Amounts brought forward		$361,316 60	$411,000 00
For Tools, hardware and surveying instruments, etc.:—			
Burditt & Bynner	$25 10		
Dodge, Haley & Co.	4 58		
Fred C. Gifford	1 75		
J. A. Higgins	36 01		
Chas. C. Hutchinson	110 00		
Stowell Bros.	10 00		
		187 44	
Teaming, Standard Construction Co.		8 00	
Telephone rent and tolls		70 85	
Transportation, Waltham Hospital		29 00	
Total			$361,611 89
Balance unexpended			$49,388 11

Water Works (Payson Park Reservoir).

Appropriation			270,000 00
Transferred from Water Works, Fresh Pond Land			50,000 00
			$320,000 00
RECEIVED.			
For Errors on pay roll	$8 00		
Labor	9 00		
Premium on bonds	21,120 50		
Telephone toll	40		
	21,137 90		
EXPENDED.			
For Advertising:—			
Boston Daily Advertiser	13 12		
Boston Herald Co.	17 25		
Cambridge Chronicle Co.	3 21		
		33 58	
Air chamber, Edw. Kendall & Sons		206 25	
Alterations at F. P. Pumping St.:—			
C. E. McKinnon		5,626 62	
Benzine, Alden Speare's Sons & Co.		13 00	
Amounts carried forward		$5,879 45	$320,000 00

Water Works (Payson Park Reservoir) — Continued.

Amounts brought forward		$5,879 45	$320,000 00
For Blue prints and photo goods:—			
Benj. French & Co.		5 03	
Boilers at F. P. Pumping St., Lake Erie Boiler Works		13,082 37	
Bricks, M. W. Sands		85 68	
Building reservoir:—			
R. A. Malone	$47,389 46		
Extra work	657 12		
		48,046 58	
Carpentry, F. B. Furbush		97 50	
Carriage hire, Whiting & Smith . . .		60 00	
Car tickets, W. E. Street Railway Co. .		50 00	
Cash expended for sundries:—			
E. C. Brooks	$31 50		
W. H. Harding	5 00		
C. B. Parker	1 00		
		37 50	
Cement, Damon & Gould Co.	$290 00		
Waldo Bros.	118 70		
		408 70	
Crane Girders, R. F. Hawkins		1148 00	
Damages, Cornelius W. Donovan . . .		154 00	
Damage to crops, Edw. Skahan		25 00	
Drain work, Sam'l McCulloch		59 50	
Examination of title, Wm. V. Thompson		6 00	
Expressage: Albert S. Low	$43 95		
Sundry persons	5 65		
		49 60	
Engine foundation at F. P. Pumping St., L. P. Soule & Son		15,527 96	
Foot Bridge, D. H. Andrews		125 00	
Freight, Fitchburg R. R. Co.		46 47	
Glazing, J. H. & J. P. Thayer & Co. . .		13 25	
Hardware, tools and repairs, and supplies:—			
Brock Bros.	$7 52		
Buff & Berger	201 00		
Burditt & Bynner . . .	9 67		
Dodge, Haley & Co. . .	29 31		
James Maitland	82 55		
Amounts carried forward . .	$330 05	$84,907 59	$320,000 00

Water Works (Payson Park Reservoir) — Continued.

Amounts brought forward . .	$330 05	$84,907 59	$320,000 00
For hardware, etc.:—			
F. A. White	6 70		
Sundry persons	4 57		
		341 32	
Hose, packing, etc.:—			
Boston Woven Hose Co.		45 66	
Iron beams, G. W. & F. Smith Iron Co. .		89 00	
Labor, as per pay roll		13,615 29	
Land and damages:—			
Susan R. Freeman . . .	$800 00		
Converse F. Livermore .	500 00		
Julia D. Richardson . .	1,065 92		
		2,365 92	
Lighting, Cambridge Electric Light Co. .		6 80	
Lumber and cement:—			
Geo. W. Gale Lumber Co.		238 17	
Mason work:—			
J. Delaney	$33 85		
Frank J. O'Reilley . . .	214 88		
Stearns & Waterman . .	18 00		
		266 73	
Metal, Calumet & Hecla Mining Co. . .		453 60	
Metal coating, Edw. Smith & Co. . . .		32 50	
Pipe and fittings, etc.:—			
Barbour, Stockwell Co. .	$70 85		
Geo. F. Blake Mfg. Co. .	8 25		
Builders Iron Foundry Co.	179 75		
Chapman Valve Mfg. Co. .	7 74		
Davis & Farnum Mfg. Co.	2,105 92		
E. & T. Fairbanks & Co. (Testing)	25 00		
G. W. G. Ferris & Co. (Testing)	100 36		
Hunt-Spiller Mfg. Co. .	341 49		
Edw. Kendall and Sons .	34,292 25		
D. W. Lewis	146 40		
Ludlow Valve Mfg. Co. .	609 48		
Park Bro. & Co. (Limited)	2,459 24		
Pittsburgh Testing Laboratory	477 04		
Amounts carried forward . .	$40,823 77	$102,362 58	$320,000 00

Water Works (Payson Park Reservoir) — Continued.

Amounts brought forward . .	$40,823 77	$102,362 58	$320,000 00
For Pipe and fittings, etc.:—			
Portland Stone Ware Co. .	283 44		
Ross Valve Co.	1,859 13		
Walworth Mfg. Co. . . .	14 11		
		42,980 45	
Printing, Cambridge Chronicle Co. . .		48 08	
Plumbing, J. T. Phelan		40 45	
Pumping engine:—			
Groshon High Duty Pumping Engine Co. . . .	$54,611 66		
Thos. Prosser & Son, (crucible steam forgings) .	6,290 85		
		60,902 51	
Repairing carriages and wagons:—			
Hugh Stewart & Co.		8 00	
Sand, John Gourley		14 16	
Services of city engineer		2,000 00	
Services of consulting engineers:—			
Geo. S. Rice & Geo. E. Evans . . .		1,000 00	
Services of mechanical engineers:—			
Alphonse Fteley	$269 50		
E. D. Leavitt	3,338 70		
		3,608 20	
Services of police officers:—			
Town of Belmont		305 00	
Signs, Jas. D. Hunting		7 50	
Stone:—			
Mass. Broken Stone Co. .	$1,810 48		
Overseers of the Poor,	20 31		
Street Department . .	11 30		
		$1,842 09	
Stone work:—			
Alex. McDonald & Son .	$1 00		
Wight & Scorgie . . .	11 50		
		12 50	
Sundries		14 52	
Teaming, Sundry persons		4,240 55	
Traveling crane, Berlin Iron Bridge Co. .		1,390 00	
Amounts carried forward		$220,776 59	$320,000 00

Water Works (Payson Park Reservoir) — Continued.

Amounts brought forward		$220,776 59	$320,000 00
For Use of engines and derricks:—			
Alice E. Cram	$113 02		
Norcross Bros.	25 00		
		138 02	
Total of regular expenses		220,914 61	
Completion of reservoir:—			
Advertising, Boston Herald Co.	$9 12		
Cambridge Chronicle Co.	93		
		10 05	
Asphalt:—			
Barber Asphalt Paving Co.	$206 60		
Simpson Bros.	3,337 44		
R. D. Upham	7,745 88		
		11,289 92	
Air chamber, Edward Kendall & Sons		663 75	
Benzine, Alden Speare's Sons & Co.		32 07	
Blacksmith shop, etc., R. B. Malone		75 00	
Boiler, Roberts Iron Works Co.		125 00	
Bricks, Parry Bros. & Co.		2,496 83	
Canvas, Samuel S. Vinal & Co.		40 10	
Carriage hire:—			
M. J. Fairbanks	3 00		
Whiting & Smith	34 00		
		37 00	
Car tickets, W. E. Street Railway Co.		150 00	
Cement and barrows:—			
Damon, Gould Co.	$6,253 95		
R. B. Malone	237 36		
H. Marquardt	210 00		
Waldo Bros.	9,879 50		
		16,580 81	
Chemical analysis, Arthur A. Noyes		50 00	
Express, Brooks' Express		14 40	
Fittings, gaskets, etc.:—			
Barbour, Stockwell & Co.	$388 82		
Boston Woven Hose Co.	6 19		
Chadwick Lead Works	73 98		
Edw. Kendall & Sons	5 27		
Walworth Mfg. Co.	66 80		
		541 06	
Amounts carried forward		$32,105 99	$320,000 00

Water Works (Payson Park Reservoir) — Continued.

Amounts brought forward		$32,105 99	$320,000 00
For Completion of Reservoir:—			
Fuel:—			
Baker, Hunnewell Co.	$269 95		
Richardson & Bacon	12 63		
George M. Smith	14 29		
		296 87	
Gate house at Payson Park:—			
Norcross Bros.		4,500 00	
Gravel and sand; —			
John Gourley	$150 00		
Martin Hussey	94 95		
W. B. Mullen	1,295 41		
		1,540 36	
Hardware, tools and repairs, and supplies:—			
Ames Plow Co.	$26 08		
Burditt & Bynner	257 35		
Chandler & Farquhar	26 21		
Dodge, Haley & Co.	378 81		
Perrin, Seamans & Co.	7 00		
F. A. White	95 78		
Sundry persons	6 75		
		797 98	
Horse, P. H. Dardis		125 00	
Iron, G. W. & F. Smith Iron Co.		63 77	
Labor as per pay roll		40,851 97	
Ladder, L. M. Ham & Co.		40 00	
Lumber, cement:—			
Geo. W. Gale Lumber Co.		369 24	
Oatmeal, Jas. H. Wyeth & Co.		23 63	
Photo goods, Benj. French & Co.		11 00	
Pipe, D. W. Lewis		12 80	
Printing:—			
Cambridge Chronicle Co.	1 79		
Cambridge Co-operative Society	2 50		
		4 29	
Pump, Geo. F. Blake Mfg. Co.		95 00	
Rent and storage, Payson Park Land Co.		24 00	
Repairing tools, Jas. Maitland		35 09	
Amounts carried forward		$80,896 99	$320,000 00

Water Works (Payson Park Reservoir) — Concluded.

Amounts brought forward		$80,896 99	$320,000 00
For Completion of Reservoir:—			
Repairing wagon, F. Ivers & Son . .		28 13	
Rubber boots, Cable Rubber Co. . .		15 32	
Sand, Charles Linehan		126 40	
Services of police officers, Town of Belmont		920 00	
Stone work, Austin Ford & Son . . .		59 50	
Stone:—			
J. P. Bradbury (crushed)	$290 00		
S. T. Bradbury (crushed)	722 10		
S. & R. J. Lombard (granite coping) . .	260 00		
Mass. Broken Stone Co.	1,541 17		
Overseers of the Poor .	43 34		
		2,856 61	
Sundries		5 00	
Swivel joints, etc., Barbour, Stockwell Co.		1,870 00	
Teaming, Sundry persons		7,415 32	
Testing asphalt, Henry Carmichael . .		18 00	
Transporting laborers, P. H. Dardis .		1,757 29	
Use of crusher, etc., R. B. Malone .		145 00	
Use of engine, etc:—			
Alice E. Cram . . .	$173 67		
D. Henry Cram . . .	980 70		
Geo. E. Worthen . .	120 00		
		1,274 37	
Use of shed, John Walsh		10 00	
Use of transit, Herman Gregg . . .		22 00	
Wagon, F. Ivers & Son		100 00	
Expenses of completing reservoir . . .		$97,519 93	
Total of regular expenses		220,914 61	
Total			318,434 54
Balance unexpended			$1,565 46

Water Works (Maintenance, General).

Appropriation			$30,000 00
RECEIVED.			
For Horse		$2 00	
Iron Pipe		10 84	
Old Iron		369 04	
Telephone		1 10	
Wood		121 60	
		$504 58	
EXPENDED.			
For salaries of			
Acting Supt., E. C. Brooks	$1,000 00		
Asst. Supt., Chas. B. Parker	1,200 00		
Treas. of Sinking Funds			
Wm. W. Dallinger	200 00		
Inspectors:—			
F. G. Davis	900 00		
C. E. McGuire	777 50		
Michael Purcell	32 50		
Mechanic, B. P. Doe	1,040 00		
Laborers, as per pay roll	10,609 37		
		15,759 37	
Analysis of Water, Edw. S. Wood, M. D.		20 00	
Bicycle, Wm. Read & Sons		82 75	
Carriage & wagon repairs,			
Chapman Carriage Co.	$41 85		
F. Ivers & Son	79 40		
A. J. Jones	18 13		
Hugh Stewart & Co	153 00		
Chas. Waugh & Co.	6 82		
		299 20	
Car tickets:—			
Fitchburg Railroad Co	$15 00		
W. E. Street Railway Co.	200 00		
		215 00	
Carpentry:—			
Chas. A. Sawyer.	$235 79		
C. E. McKinnon	82 42		
		318 21	
Cash expended,			
E. C. Brooks	$8 00		
W. H. Harding	8 10		
		16 10	
Amounts carried forward		$16,710 63	$30,000 00

Water Works (Maintenance, General) — Continued.

Amounts brought forward		$16,710 63	$30,000 00
For Drain work, Samuel McCulloch		64 70	
Electric fixtures, N. W. Turner Co.		5 50	
Electric supplies, Pettingell, Andrews Co.		18 15	
Exchange of horses, P. H. Dardis		25 00	
Execution of Court, Louise J. Murphy		1,000 00	
Expressage, Savage & Son		44 12	
Fuel, Coleman Bros.		23 00	
Flowers, W. Rosenthal		10 00	
Gas, Cambridge Gas Light Co.		16 92	
Hardware, tools, machinery and repairs:—			
Abbot-Downing Co.	$235 00		
Edson Mfg. Co.	45 28		
Boston Gear Works	5 50		
Burditt & Bynner	121 70		
Chas. Carr.	45 30		
Chapman Valve Mfg. Co.	66 08		
Chas. H. Goldsmith	5 00		
J. A. Hunter	6 75		
Ludlow Valve Mfg. Co.	114 60		
James Maitland	226 65		
The J. L. Mott Iron Works	28 00		
D. C. Scranton	8 25		
Walworth Mfg. Co.	14 35		
F. A. White	103 02		
		1,025 48	
Harness and repairs:—			
M. Cavanagh	$133 55		
Jas. R. Hill	117 50		
		251 05	
Hay and grain:—			
J. Cushing & Co.	$472 68		
Patrick Glennon	37 00		
		509 68	
Horse-shoeing:—			
Wm. Bell	$5 50		
John F. Gurry	64 75		
Thos. Smith	199 50		
		269 75	
Hose and packing, and rubber goods:—			
Boston Woven Hose Co.		53 48	
Amounts carried forward		$20,027 46	$30,000 00

Water Works (Maintenance, General) — Continued.

Amounts brought forward		$20,027 46	$30,000 00
For Inspection of Water Works:—			
Carriage hire:—			
Irving Blake	$12 00		
J. Callahan	12 00		
Chas. W. Dailey	12 00		
J. E. Fabyan	12 00		
M. J. Fairbanks	12 00		
Lake & Moynahan	12 00		
Joseph Le Favre	12 00		
James McGovern	12 00		
Richdale Ave. Stables	12 00		
Daniel P. Shea	12 00		
Whiting & Smith	12 00		
		132 00	
Dinners, etc., Joseph Lee		140 15	
Printing:—			
John H. Ford	$6 25		
Samuel Hobbs & Co.	12 50		
		$18 75	
Lumber, cement, George W. Gale Lumber Co.		54 42	
Meters and repairs:—			
American Rubber Co	$235 00		
Hersey Mfg. Co.	9 59		
National Meter Co.	32 00		
Henry R. Worthington	107 19		
Union Water Meter Co.	60 63		
		444 41	
Payments, in accordance with Acts of 1893, Chapter 352:—			
City of Waltham	$534 14		
Town of Belmont	243 90		
Lexington	180 89		
Lincoln	78 26		
Weston	70 60		
		1,107 79	
Pipe and fittings:—			
Walworth Mfg. Co.	$598 76		
The George Woodman Co.	33 09		
		631 85	
Amounts carried forward		$22,556 83	$30,000 00

Water Works (Maintenance, General) — Continued.

Amounts brought forward		$22,556 83	$30,000 00
For Rent of office, shop, etc., at City Hall, City of Cambridge		2,000 00	
Rent of box, Cambridge Safe Deposit Co.		20 00	
Repairing fountain, Edward Kendall & Sons		17 60	
Repairing pipe bridge, D. W. Gage		47 33	
Repairing roof, John J. Blevins		6 18	
Repairing bicycles, J. L. Moseley		28 10	
Sign painting, Jas. D. Hunting		6 86	
Stationery, printing, etc.:—			
Cambridge Chronicle Co.	$110 60		
Cotton & Gould	12 25		
Frost & Adams	8 16		
Thos. Groom & Co.	65 94		
Library Bureau	68 75		
Thorp & Martin Co.	349 66		
		615 36	
Supplies, J. A. Holmes & Co.		67 07	
Sundries		72 50	
Services as Electric Engineer, Charles H. Morse		100 00	
Testing pipe:—			
George E. Allyn	$29 00		
John W. Wood, Jr.	32 00		
		61 00	
Teaming:—			
P. J. Curley	$18 00		
Chas. McMahon	172 08		
Peter Tumilty	33 75		
		223 83	
Telephone rent and tolls, N. E. Telephone Co.		209 09	
Timbering track, etc., Fitchburg Railroad Co.		15 99	
Use of horses and wagons, F. D. Bartlett		47 00	
Wagon, Abbott-Downing Co.		150 00	
Total			26,244 74
Balance unexpended			$3,755 26

Water Works (Maintenance, Office).

Appropriation,			$5,600 00
EXPENDED.			
For Salaries of			
Water Registrar, Walter H. Harding	$2,200 00		
Office Clerks, H. L. Lincoln	1,000 00		
H. F. Milligan	780 00		
G. K. Dame	520 00		
M. M. Robbins	520 00		
		$5,020 00	
Car tickets, W. E. Street Railway Co.		50 00	
Directories, Sampson, Murdock & Co.		5 00	
Furniture and repairs, Phillips Bros. & Co.		7 25	
Stationery and printing:—			
Cambridge Chronicle Co.	$36 25		
Carter's Ink Co.	7 15		
Cotton & Gould	108 75		
Thorp & Martin	14 00		
Walker, Young & Co.	15 50		
		181 65	
Subscription, F. L. Beunke		6 00	
Sundries,		13 99	
Typewriter supplies, W. M. Belcher & Co.		12 20	
Total,			$5,296 09
Balance unexpended			303 91

Water Works (Maintenance).

Pumping.

Appropriation			$20,000 00
EXPENDED.			
For Salaries of			
Engineer, E. C. Brooks	$1,500 00		
Assistant Engineer, Wm. Blaisdell	1,040 00		
Laborers, as per pay roll	4,289 50		
		$6,829 50	
Bricks, D. W. Lewis		16 25	
Carpentry, C. E. McKinnon		37 35	
Ensign, I. W. Wheeler & Co.		11 20	
Expressage, Hatch & Co.		7 70	
Amounts carried forward		$6,902 00	$20,000 00

Water Works (Maintenance) — Continued.

Pumping.

Amounts brought forward		$6,902 00	$20,000 00
For Fuel: —			
L. G. Burnham & Co.	3,586 30		
Garfield & Proctor	3,257 54		
		6,843 84	
Hardware, tools, supplies, fittings: —			
Bay State Metal Works	$5 55		
Boston Woven Hose Co.	16 34		
Burditt & Bynner	24 10		
A. W. Chesterton & Co.	31 94		
S. C. Higgins	10 65		
		88 58	
Lamps, Pettingell, Andrews Co.		9 90	
Ice, Fresh Pond Ice Co.		21 90	
Oil, A. N. Reynolds & Co.	131 93		
Standard Oil Co.	21 59		
		153 52	
Packing, Knowlton Packing Co.		10 55	
Painting: —			
Chas. A. Sawyer	$142 28		
John C. Sheafe	99 70		
		241 98	
Plumbing, Levi Hawkes		12 96	
Sundries		33 03	
Telephone rent and tolls, N. E. Telephone Co.		96 85	
Total			$14,415 11
Balance unexpended			$5,584 89

Water Works (Maintenance).

Renewal of Main Pipe.

Appropriation		$50,000 00
EXPENDED.		
For Labor, as per pay roll	$15,818 50	
Car tickets, W. E. Street Railway Co.	25 00	
Cash expended, E. C. Brooks	14 50	
Drain work, Samuel McCulloch	41 50	
Express, Savage & Son	37 35	
Amounts carried forward	$15,936 85	$50,000 00

Water Works (Maintenance) — Continued.

Renewal of Main Pipe.

Amounts brought forward		$15,936 85	$50,000 00
For Freight:—			
Schooner, Northern Light, and Owners	$366 83		
Schooner, A. K. Bentley, and Owners	651 84		
Schooner, Nightingale, and Owners	154 03		
Alfred Winsor & Sons, Assignees	197 10		
		1,369 80	
Hose, etc., Boston Woven Hose Co. . .		68 10	
Hydrants, Holyoke Hydrant & Iron Works		1,295 80	
Iron Work, Barbour, Stockwell & Co. .		35 75	
Labor and materials, Street Department .		492 50	
Labor, Boston & Maine R. R. Co. . . .		7 35	
Lead, Chadwick Lead Works		2,115 23	
Lumber, cement, Geo. W. Gale Lumber Co.		119 70	
Packing, J. Baker & Co.		81 96	
Paving, H. Gore & Co.		16 49	
Paving stones, S. & R. J. Lombard . .		24 00	
Pipe and fittings:—			
Davis & Farnum Mfg. Co.	$55 78		
Walworth Mfg. Co. . .	462 10		
Warren Foundry and Machine Co.	23,461 54		
		23,979 42	
Sundries:—			
J. A. Holmes & Co. . .	$9 71		
Sundry persons	4 45		
		14 16	
Teaming:—			
Chas. McMahon	$501 44		
Peter Tumilty	27 75		
		529 19	
Tools and repairs, supplies, hardware:—			
Burditt & Bynner . . .	$47 35		
James Maitland	55 05		
D. C. Scranton	13 60		
		116 00	
Amounts carried forward		$46,202 30	$50,000 00

Water Works (Maintenance) — Continued.

Renewal of Main Pipe.

Amounts brought forward		$46,202 30	$50,000 00
For Valves, fittings, service boxes:—			
Davis & Farnum Mfg. Co.	$169 03		
Ludlow Valve Mfg. Co.	1,282 77		
The A. P. Smith Mfg. Co.	674 00		
Walworth Mfg. Co.	438 14	2,563 94	
Total			48,766 24
Balance unexpended			$1,233 76

Water Works (Maintenance, Stony Brook Reservoir).

Appropriation		$1,100 00
EXPENDED.		
For Salary of Gateman, Silas Baxter	$728 00	
Car tickets, Fitchburg R. R. Co.	6 00	
Fuel, G. F. Frost	18 76	
Hardware, tools and supplies, Burditt & Bynner	7 36	
Lumber, Libby & Larcom	16 98	
Supply pipe, Waltham Water Works	114 80	
Sundries,	9 12	
Telephone rent and tolls, N. E. Telephone Co.	96 55	
Total,		$997 57
Balance unexpended		102 43

Water Works (Interest on Water Loan).

Appropriation		$98,835 00
RECEIVED.		
For accrued interest on bonds	$1,899 34	
EXPENDED.		
For Interest on Water Debt		
Coupons	54,240 00	
Registered	34,985 00	
Total		$89,225 00
Balance unexpended		$9,610 00

Water Works (Rates, Fines, etc.).

RECEIVED.

From Sundry persons for rates, fines, etc.		$289,820 67

EXPENDED.

For Construction	$20,000 00	
Interest on Water Debt	89,225 00	
Maintenance	95,719 75	
Abatements of Rates	4,132 60	
Refund of Rates	2,652 49	
Sinking Fund requirements	78,090 83	
Total		$289,820 67

Water Works (Rates, Fines, etc.).

Abatements.

Appropriation	$5,000 00

EXPENDED.

For abatements allowed on Water Rates	4,132 60
Balance unexpended	$867 40

Water Works (Rates, Fines, etc.).

Refunds.

Appropriation	$2,500 00
Additional Appropriation	152 49
	$2,652 49

EXPENDED.

For Refund of Water Rates	2,652 49

Water Works (Sinking Funds).

Appropriation	$77,542 50
Surplus receipts of Water Works	3,688 19
	$81,230 69
Paid to Trustees of Sinking Fund of Water Works	81,230 69

Water Works (Supplies).

Appropriation		$7,800 00

RECEIVED.

For Supply-pipes, etc.,	$7,265 85	

EXPENDED.

For Labor, as per pay roll	2,911 00	
Amounts carried forward	$2,911 00	$7,800 00

Water Works (Supplies) — Concluded.

Amounts brought forward		$2,911 00	$7,800 00
For Pipe and fittings, valves:—			
Barbour, Stockwell & Co.	$42 00		
Chapman Valve Mfg. Co.	1,134 50		
Lead Lined Iron Pipe Co.	19 70		
Walworth Mfg. Co.	2,012 75		
The George Woodman Co.	357 19		
		3,566,14	
Sundries		5 48	
Total			$6,482 62
Balance unexpended			$1,317 38

Water Works (Supplies).

Abatements.

Appropriation	$200 00
EXPENDED.	
For abatement of supply bills	$47 29
Balance unexpended	$152 71

Cambridge Water Works

In account with the City of Cambridge for the year ending November 30th, 1896.

RECEIPTS AND EXPENDITURES.

Balance in the City Treasury to the credit of the Water Works, Nov. 30th, 1895	$155,342 79	Expended for	
Received from sale of bonds	665,100 00	General Construction	$19,902 53
Premiums, accrued interest, etc.	49,596 11	Fresh Pond Land	98 50
Rates, fines, etc.	289,820 67	Fresh Pond Reservoir	65,991 86
Supplies	7,265 85	Hobbs Brook Reservoir	361,611 89
		Payson Park Reservoir	318,434 54
		Interest on Water Debt	89,225 00
		Sinking Fund	81,230 69
		Maintenance	95,719 75
		Abatements and Refunds	6,832 38
		Supplies	6,482 62
		Balance carried forward to credit of Water Works	121,595 66
	$1,167,125 42		$1,167,125 42

Recapitulation.

City Department Accounts.	Receipts.	Appropriations.	Expended.	Balances Unexpend'd
Ambulance Department	$186 00	$2,452 39	$2,452 39	
Assessors' Department		13,000 00	12,943 24	$56 76
Auditing Department		3,600 00	3,567 88	32 12
Bridge Department	812 07	14,000 00	13,510 35	489 65
Cemetery Department	18,050 36	20,000 00	20,000 00	
City Clerk Department	2,537 75	7,107 04	7,107 04	
City Messenger Department		2,800 00	2.763 59	36 41
Civil Service Department		250 00	249 97	03
Clerk of Committees Department		3,925 34	3,925 34	
Contingent Fund	654 70	11,139 18	11,139 18	
Fiftieth Anniversary		5,000 00	5,000 00	
Election Expenses: —				
City Clerk	300 00	6,968 82	6.968 82	
Registrars of Voters		4,000 00	3,612 76	387 24
Superintendent of Public Buildings		1,882 41	1,882 41	
Engineering Department	3,645 51	12.000 00	11,401 79	598 21
Assessors' Plans		3,000 00	2,809 76	190 24
Executive Department	22 50	5.500 00	5,414 08	85 92
Fire Department	140 00	85,500 00	85,467 88	32 12
Health Department		17,000 00	16,999 55	45
Inspection of Milk and Vinegar	150 50	1,600 00	1,586 24	13 76
Inspection of Provisions, etc.		800 00	793 60	6 40
Inspection of Wires	266 88	12,000 00	11,999 74	26
Interest	57,734 21	132,099 07	132,099 07	
Lamp Department	203 00	67,500 00	67,325 31	174 69
Land Damages		*104,967 93	46,349 55	58,618 38
Law Department	2,100 00	5,200 00	5,197 44	2 56
Overseers of the Poor Department: —				
Almshouse	1,042 79	20,169 28	20,169 28	
Farm and Ledge	13,263 10	10.394 33	10.394 33	
House Offal	9,155 35	26,284 51	26.284 51	
Outside Aid	5,757 62	47,031 69	47,031 69	
Salary of Assistant City Physician		1,500 00	1,500 00	
Park Department: —				
Construction	3,548 18	*260,063 00	218,460 74	41,602 26
Maintenance	32 56	90,000 00	8,999 69	31
Interest		20,740 00	20,580 00	160 00
Sinking Fund		8,450 00	8,450 00	
Plumbers' Examiners Department	30 00	125 00	101 05	23 95
Police Department	6,830 45	110,500 00	110,111 14	388 86
Public Library: —				
Current Expenses	4,396 95	18,500 00	18,354 06	145 94
☞ Building		*265 22	138 94	126 28
Public Property: —				
City Buildings, Care and Repairs	3,672 73	25.666 70	25,343 10	323 60
Heating Apparatus, City Hall		3,129 00	3,129 00	
Incidentals		5,500 00	5,253 96	246 04
Land for School House, Ward Three		6,000 00	6,000 00	
New Engine House, Ward Three		9,463 90	9,463 90	
New Engine House, Ward Five		*22.666 62	22,664 66	1 96
New Latin School House		*250,000 00	1,375 00	248,625 00
New School House, Ward One		*39,960 89	24.225 78	15.735 11
New School House, Ward Three		*17,292 49	17,283 32	9 17
Sanitary Arrangements, Schools		8,000 00	7,992 79	7 21
School Houses, Care and Repairs,		50,544 83	50,544 83	
Shooting Range		3,025 00	2,987 97	37 03
School Department: —				
Care of Truants		2,500 00	2,262 62	237 38
Flags		900 00	738 70	161 30
Incidentals		1,000 00	870 95	129 05
Salaries	1,814 16	250,000 00	249,639 51	360 49
Text-Books and Supplies	391 40	18,437 22	18,437 22	
Transportation of Pupils		600 00	532 50	67 50
Sealer of Weights and Measures	492 40	1,600 00	1,570 52	29 48
Amounts carried forward	$137,231 17	$1,792,601 86	$1,423,458 74	$369,143 12

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* Appropriation provided for by a Loan.

Recapitulation — Continued.

City Department Accounts.	Receipts.	Appropriations.	Expended.	Balances Unexpend'd
Amounts brought forward..........	$137,231 17	$1,792,601 86	$1,423,458 74	$369,143 12
Sewer Department: —				
Broadway Storm Relief..........		*14,000 00	12,920 18	1,079 82
Clay Lands........................		*50,000 00	6,868 68	43,131 32
Construction, General............	11,418 66	*35,000 00	32,103 76	2,896 24
Construction First Street Sewer.	8 00	*7,500 00	7,497 24	2 76
Maintenance......................	1,384 72	19,641 63	19,641 63	
Massachusetts Avenue Storm Relief..............................		*11,545 04	11,545 04	
Metropolitan Connections........		*17,000 00	12.140 50	4,859 50
Tannery Brook..................		*8,000 00	3.971 24	4,028 76
Sinking Funds: —				
General..........................		85,765 00	85,765 00	
Harvard Bridge..................		8.000 00	8,000 00	
State Aid..............................	14,217 94	23,500 00	23,209 03	290 97
Stationery and Printing........	1.110 91	3,000 00	2,939 79	60 21
Street Department: —				
Bridges		4,266 34	4,266 34	
City Stable and Yard, Ward Five.		*44,000 00	13,955 14	30,044 86
Cleaning Streets.................		23,000 00	22,999 86	14
Collection of Ashes..............		19,348 26	19,348 26	
Construction: —				
Boylston Street................		13,558 50	13,099 81	458 69
Charles and Vine Streets		*2,436 70	2,434 93	1 77
Dunster Street................		*315 00	177 81	137 19
Eighth Street..................		*984 10		984 10
Eliot Street....................		*3,367 00	2,292 95	1,074 05
First Street....................	290 90	*30,000 00	29,999 57	43
McDonald Street..............		*9,833 42	9,830 60	2 82
Seventh Street.................		*1,075 00	1,071 39	3 61
Maintenance......................	2,996 74	70,095 98	70,095 98	
Paving, Edgestones, and Sidewalks............................	17,596 13	40,000 00	39,999 12	88
Resurfacing Webster Avenue....		6,000 00	5,999 50	50
Watering.........................	8,924 83	28,500 00	28,481 70	18 30
Treasury Department...............	1,947 01	14,000 00	13,995 46	4 54
	$197,127 01	$2,386,333 83	$1,928,109 25	$458,224 58

Water Department Accounts.	Receipts.	Appropriations.	Expended.	Balances Unexpend'd
Water Works Department: —				
Construction (General Account)...	$21 00	*$20,000 00	$19,902 53	$97 47
Construction (Fresh Pond Land)..	300 00	*5,000 00	98 50	4,901 50
Construction (Fresh Pond Reservoir)............................	5,396 79	*66,000 00	65,991 86	8 14
Construction (Hobbs Brook Reservoir)............................	20,336 50	*411.000 00	361.611 89	49,388 11
Construction (Payson Park Reservoir)............................	21,137 90	*320,000 00	318,434 54	1,565 46
Maintenance (General Account)...	504 58	30,000 00	26.244 74	3,755 26
Maintenance (Office Expenses)....		5.600 00	5,296 09	303 91
Maintenance (Pumping)		20,000 00	14.415 11	5,584 89
Maintenance (Renewal of Main Pipe)............................		50,000 00	48,766 24	1,233 76
Maintenance (Stony Brook Reservoir)............................		1,100 00	997 57	102 43
Interest on Water Loan...........	1,899 34	98,835 00	89,225 00	9,610 00
Rates, Fines, etc..................	289,820 67			
Rates, Fines, etc. (Abatements)...		5,000 00	4,132 60	867 40
Rates, Fines, etc. (Refunds)		2,652 49	2,652 49	
Sinking Funds......................		81,230 69	81,230 69	
Supplies............................	7,265 85	7,800 00	6,482 62	1,317 38
Supplies (Abatements)............		200 00	47 29	152 71
	$346,682 63	$1,124,418 18	$1,045,529 76	$78,888 42

* Appropriation provided for by a Loan.

City Treasury.

Dr.

To Cash in Treasury, December 1, 1895	$268,516 87	
Receipts as shown in the foregoing Statement (City Department Accounts)	197,127 01	
Receipts as shown in the foregoing Statement (Water Department Accounts)	346,682 63	
Amount received from Collector of Taxes for 1896	1,084,553 80	
Amount received from Collector of Taxes for other years	182,163 27	
Cemetery Fund	2,585 50	
City Lands	2,516 00	
Commissioners of Sinking Funds	54,000 00	
Loan, "Building"	103,000 00	
Loan, Clay Lands	50,000 00	
Loan, "Parks"	240,000 00	
Loan, Sewer	75,000 00	
Loan, Street	137,000 00	
Loan, School House	6,000 00	
Loan, Temporary	786,000 00	
Loan, Water (Registered)	665,100 00	
Park Betterments	2,505 57	
Street Improvements	2,360 00	
Tax, Corporation	71,949 32	
Tax, National Bank	16,064 37	
Tax, Sale Surplus	30 00	
Trustees of Sinking Funds of Water Works	278.000 00	
		$4,571,154 34

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By Amount expended as shown in the foregoing Statement (City Department Accounts)	$1,928,109 25	
Amount expended as shown in the foregoing Statement (Water Department Accounts)	1,045,529 76	
Abatements (Taxes)	17,922 54	
Cemetery Fund	2,585 50	
Loan Sewer	54,000 00	
Loan Temporary	786,000 00	
Loan, Water (Registered)	278,000 00	
Tax Sale, Surplus	58 34	
Tax, County	78,321 11	
Tax, National Bank	6,632 77	
Tax, State	54,600 00	
		$4,251.759 27
Balance in Treasury		$319.395 07

Schedule of Real Estate Owned by the City of Cambridge, as shown on the Assessors' Books, Nov. 30, 1896.

Cambridge Cemetery:—			
60$\frac{1}{10}$ acres of land		$60,000	
2 houses		12,500	
			$72,500
Cambridge Public Library:—			
135,621 feet of land		67,000	
Library Building		116,000	
			183,000
Fire Department:—			
Hook and Ladder No. 2, Portland Street	$12,000		
11,931 feet of land	3,000		
		15,000	
Engine House No. 5, junction Cambridge and Hampshire Streets	10,000		
6,000 feet of land	5,000		
		15,000	
Police Station, Fourth Street	20,000		
4,220 feet of land	2,100		
		22,100	
Engine House, S. S. Main, Cor. Deacon Street	12,000		
9,400 feet of land	7,300		
		19,300	
Engine House lot, Mass. Ave.		6,000	
Engine House No. 4 and stable, North Avenue	7,000		
6,516 feet of land	3,000		
		10,000	
Engine House No. 6, River Street	12,000		
4,994 feet of land	2,500		
		14,500	
Engine House E. S. Lexington Ave.	11,000		
15,262 feet of land	3,500		
		14,500	
Engine House, Massachusetts Ave.	26,000		
10,000 feet of land	8,000		
		34,000	
Engine House, Third Street	17,500		
10,100 feet of land	5,500		
		23,000	
			173,400
Amount carried forward			$428,900

Amount brought forward			$428,900
Pauper Department:—			
$14\frac{242}{1000}$ acres of land		$15,000	
Almshouse buildings		25,000	
			40,000
Public buildings and lands:—			
City Hall (new), Mass. Ave.	$200,000		
47,878 feet of land	72,000		
		272,000	
Ward One Building, Mt. Auburn Street	60,000		
16,153 feet of land	16,000		
		76,000	
Ward Four Building, Green Street	50,000		
13,028 feet of land	10,500		
		60,500	
Stables, sheds and scales, Hampshire Street	17,000		
72,661 feet of land	30,000		
		47,000	
Park, Boylston, Mt. Auburn and Winthrop Streets, 10,236 feet of land		8,000	
Park, S. S. Broadway, 107,181 ft. land		54,000	
Park, Hastings Square, 30,000 ft. land		9,000	
Park, Dana Square, 33,531 ft. land		12,000	
Park, Pleasant Street, 1,372 ft. land		1,000	
Park, Pleasant, River, Cottage and Kinnaird Streets, 1,569 ft. land		1,200	
Fort Washington, E. S. Waverly Street, 42,123 ft. land		8,000	
Mill Pond Property, N. S. River St., W. S. Blackstone St., 70,684 ft.		29,000	
Lot, E. S. Portland Street, 18,011 feet		5,500	
8 lots, E. S. Norfolk Street, 39,600 feet		12,000	
Amounts carried forward		$595,200	$468,900

Amounts brought forward		$595,200	$468,900
Public buildings and lands:—			
Lot, Second Street, 26,400 ft. .		5,200	
Lot, W. S. Reed Street, 1,500 feet		100	
2 lots, Walden Street, 16,365 feet		1,600	
Lot N. S. River Street, 2,282 feet		700	
Flats, S. S. Main Street, 162,000 ft.		7,600	
Common, Garden, Mass. Avenue, and Waterhouse Sts., 370,785 ft.		150,000	
Park, Mass. Ave., Kirkland and Cambridge Sts., 33,357 feet		77,000	
Park, Mass. Avenue and Harvard Sq., 23,074 feet			
Park, Mass. Avenue and Holmes Place, 20,956 feet			
Park, Spruce and Cleveland Sts., 501,729 feet		30,047	
Lot, W.S. Blackstone St., Western Ave., and Ampere St., 19,934 ft.		5,600	
Mill Pond property, S. S. Western Ave., n. Howard, 200.257 feet		42,000	
Mt. Auburn St.:—			
Buildings	$1,200		
60,508 feet of land	9,000		
		10.200	
Ward 3, Charles River Parkway, 452,910 feet		20,500	
Ward 4, Charles River Parkway, 2,164,636 feet		86,500	
Ward 2, Binney Field 468,729 feet		63,800	
Triangular lot, Mass. Avenue and Arrow Street, 872 feet . . .		800	
Burial ground, Mass. Avenue and Garden Street, 85,858 feet . .			
Triangular lot, Chauncy and Garden Streets, 3,189 feet . .		1,500	
Buildings and land, N. S. Bridge		1,000	
			1,099,347
Amount carried forward			$1,568,247

Amount brought forward			$1,568,247

SCHOOL HOUSES AND LANDS.

Ward One.

New High School, Broadway . .	$220,000		
154,125 feet of land	84,700		
		$304,700	
Washington Grammar, Brattle Street	30,000		
14,951 feet of land	7,000		
		37,000	
Corlett Grammar, Holworthy Street	3,000		
10,000 feet of land	1,000		
		4,000	
Manual Training School, Broadway, Irving and Felton Streets . . . Land, 73,128 feet		36,200	
Agassiz Primary, Sacramento Street	18,000		
19,689 feet of land	6,000		
		24,000	
Cushing Primary, Cushing Street .	3,000		
14,787 feet of land	1,500		
		4,500	
Dunster Primary, Concord Avenue	4,000		
10,000 feet of land	2,000		
		6,000	
Holmes Primary, Hilliard Street .	6,000		
11,182 feet of land	4,500		
		10,500	
Lowell Primary, Lowell Street . .	7,000		
12,033 feet of land	2,500		
		9,500	
Quincy Primary, Mason Street . .	10,000		
8,469 feet of land	5,000		
		15,000	
Riverside Primary, Putnam Avenue	5,000		
11,198 feet of land	3,000		
		8,000	
Russell School, Larch Street . .	40,000		
33,073 feet of land	4,800		
		44,800	
Amounts carried forward		$504,200	$1,568,247

Amounts brought forward		$504,200	$1,568,247
Ward Two.			
Latin High, Fayette Street . . .	$40,000		
37,828 feet of land	15,000		
		55,000	
Old Latin School, Lee Street . .	10,000		
10,100 feet of land	5,000		
		15,000	
Wellington Training, Columbia St.	16,000		
18,870 feet of land	5,700		
		21,700	
Allston Grammar, Boardman Street	18,000		
15,193 feet of land	4,600		
		22,600	
Harvard Grammar, Inman Street .	40,000		
20,494 feet of land	12,000		
		52,000	
Bridge Primary, Pioneer Street .	500		
4,646 feet of land	1,400		
		1,900	
Dana Primary, Centre Street . .	2,000		
14,317 feet of land	4,300		
		6,300	
Felton Primary, Amory Street . .	6,000		
15,090 feet of land	4,500		
		10,500	
Gannett(old)Primary, Columbia St.	2,000		
8,803 feet of land	2,500		
		4,500	
Gannett(new)Primary, Jefferson St.	12,000		
15,434 feet of land	3,000		
		15,000	
Sargent Primary, Broadway . .	3,000		
9,995 feet of land	4,000		
		7,000	
Stearns Primary, Harvard Street .	3,000		
10,050 feet of land	5,000		
		8,000	
Parker Primary, S. S. Broadway .	15,000		
12,329 feet of land	7,000		
		22,000	
Amounts carried forward		$745,700	$1,568,247

Amounts brought forward		$745,700	$1,568,247
Ward Three.			
Putnam Grammar, Fourth and Otis Streets	$60,000		
11,900 feet of land	8,300	68,300	
Thorndike Grammar, Thorndike St.	30,000		
10,027 feet of land	4,000	34,000	
Gore Primary, Gore Street	25,000		
9,900 feet of land	4,000	29,000	
Lassell Primary, Charles Street	8,000		
10,000 feet of land	2,500	10,500	
Otis Primary, Otis Street	12,000		
8,270 feet of land	4,000	16,000	
Taylor School House	36,000		
20,000 feet of land	6,000	42,000	
Ward Four.			
Webster Grammar, Upton Street	$50,000		
25,839 feet of land	9,000	59,000	
Boardman Primary, Winsor Street	12,500		
10,018 feet of land	4,000	16,500	
Tarbell Primary, Grigg Street	8,000		
19,500 feet of land	4,000	12,000	
Willard Primary, Lake Street	20,000		
20,079 feet of land	5,000	25,000	
Morse School House, Allston and Brookline Streets	73,000		
25,650 feet of land	7,000	80,000	
Ward Five.			
Peabody Grammar, Linnæan Street	27,000		
21,813 feet of land	8,000	35,000	
Shepard Grammar, Mass. Avenue	20,000		
14,755 feet of land	7,000	27,000	
Amounts carried forward		$1,200,000	$1,568,247

Amounts brought forward		$1,200,000	$1,568,247
Reed Primary, Reed Street	$4,000		
12,000 feet of land	1,200		
		5,200	
Wyman Primary, Spruce Street	6,000		
14,347 feet of land	3,500		
		9,500	
Sleeper School, Dudley Street	29,000		
21,284 feet of land	4,000		
		33,000	
			1,247,700
Sewer Department:—			
23,707 feet of land, Pilgrim Street		5,900	
Stables, shed, house, and building		4,100	
			10,000
Water Works:—			
House, shop and stables, S. S. Concord Avenue	4,000		
$27\frac{33}{100}$ acres of land	16,700		
		20,700	
Land, S. S. Concord Avenue ⅝ acre		300	
Land, E. S. Woodlawn Avenue, 15,735 feet		800	
Lot, rear of Grove Street, 272,800 feet		2,000	
Lot, S. S. Concord Avenue, 99,000 feet		1,000	
Land, S. S. Concord Avenue, 11,220 feet		100	
Two lots, S. S. Concord Avenue, 219,400 feet		2,200	
Gate-house lot, Concord Avenue, 43,560 feet		400	
Lot, S. S. Concord Avenue, 24,100 feet		300	
Fresh Pond Lane, 11¼ acres of land		11,000	
Kingsley Park, Fresh Pond Lane, 309,336 feet		8,000	
Lot, rear Fresh Pond Lane, 364,608 feet		3,500	
Amounts carried forward		$50,300	$2,825,947

Amounts brought forward	$50,300	$2,825,947
Water Works:—		
Lot, Woodlawn Avenue, 107, 616 feet	8,000	
Lot, Woodlawn Avenue, 26,989 ft.	1,600	
Lot, rear Fresh Pond Lane, 239,541 feet	5,000	
Lot, Woodlawn Avenue, 91,040 ft.	2,000	
Lot, Holworthy Street, 18,480 ft.		
Lot, W. S. Cushing St., 22,348 ft.	700	
Lot, E. S. Cushing Street, 41,053 feet	800	
Lot, Cushing Street, cor. Woodland Avenue, 95,482 feet . .	2,000	
Lot, Woodland Avenue, 24,096 feet	1,900	
Lot, E. S. Cushing St., 222,750 ft. Lot, E. S. Cushing St., 416,800 ft.	4,000	
Two lots, near Fresh Pond and Adams Place, 110,891 feet .	1,000	
Land, Adams Place, 55,275 feet . 105,322 feet	1.400	
Lot, Woodlawn Avenue, 25, 216 feet of land	1,200	
Land, Woodlawn Avenue, 133,379 feet	13,700	
Gravel pit, S. S. Concord Avenue, 397,417 feet	3,000	
190,500 feet of land, Adams Street	4,300	
Lot, W. S. Cushing St., 91,112 ft.	500	
Near Concord Avenue, 4½ acres	5,000	
Adams Place, 419,222 feet of land	10,000	
S. S. Concord Avenue, 10,805 feet of land	500	
S. S. Concord Avenue, 32,425 feet of land	700	
S. S. Concord Avenue, 62,000 feet of land	1,200	
Lot, Adams Street, 1¾ acres . .	1,000	
Concord Avenue, 294,000 feet of land.	3,000	
Amounts carried forward	$122,800	$2,825,947

Amounts brought forward		$122,800	$2,825,947
Water Works:—			
Tudor Park, near Concord Avenue, 57, 312 feet of land			
Pumping Station, Worthington Street	$50,000		
Dwelling House	2,000		
90,414 feet of land	9,000		
		61,000	
One house and stable Lexington Avenue, Lake View Avenue, and Vassal Lane, 88,077 feet of land		16,600	
Reservoir, Reservoir Street, 91,003 feet of land		18,000	
Two houses, stable and sheds and building, S. S. Auburn Street	5,700		
33,300 feet of land	6,600		
		12,300	
Lot, Grove Street, 150,000 feet		1,500	
Land and buildings, Grove Street, 519,000 feet		11,000	
Lot, Fresh Pond Lane, cor. Huron Avenue, 46,479 feet		6,900	
Lot, Fresh Pond Lane, 206,900 feet		20,000	
			270,100
Total			$3,096,047

Exempted Property.

The following is a schedule of property used for religious, charitable, and educational purposes, and exempt from taxation by law, not including that owned by the City of Cambridge, as shown on the Assessors' Books, November 30, 1896.

Ward One.

Christ Church, Episcopal, Garden Street:—		
Church	$12,000 00	
22,701 feet of land	12,000 00	
Amount carried forward		$24,000 00

Amount brought forward . .		$24,000 00
First Parish Church, Unitarian:—		
Church, Massachusetts Ave.	$20,000 00	
14,764 feet of land	22,000 00	
		42,000 00
Cambridge Social Union:—		
House, No. 42, Brattle Street	5,000 00	
$\frac{13}{22}$ of hall.	7,000 00	
9,030 feet of land	6,700 00	
		18,700 00
Epworth M. E. Church:—		
Church, Massachusetts Ave.	80,000 00	
11,248 feet of land . . .	10,000 00	
		90,000 00
Old Cambridge Baptist Society:—		
Church, Mass. Ave. and Harvard Streets	86,000 00	
34,573 feet of land	24,000 00	
		110,000 00
Shepard Congregational Society:—		
Church, Garden Street . .	110,000 00	
34,556 feet of land	28,000 00	
		138,000 00
St. Peter's, Roman Catholic:—		
Church, Concord Avenue .	45,000 00	
32,000 feet of land	10,000 00	
		55,000 00
St. Paul's Roman Catholic:—		
Church, Mt. Auburn St. . .	30,000 00	
11,216 feet of land . . .	10,000 00	
		40,000 00
St. Paul's Catholic School Association:—		
Personal property	1,500 00	
School building	55,000 00	
House, Arrow and Mt. Auburn Streets	8,000 00	
29,091 feet of land	15,000 00	
		79,500 00
Amount carried forward		$597,200 00

Amount brought forward		$597,200 00
Cambridge Hospital:—		
Personal Property	$157,087 75	
Building, Mt. Auburn St. 412,487 feet of land	110,000 00	257,087 75
Longfellow Memorial Association:—		
Personal property	16,672 67	
Park, S. S. Brattle Street, 93,618 feet	46,000 00	62,672 67
Episcopal Theological School, Trustees of:—		
Personal property	135,265 75	
Chapel, seminary, dormitories, Brattle and Mason Streets, and Hastings Ave. Two houses, Hawthorne and Acacia Streets Two houses, Mason St. and Phillips Place	238,471 82	373,737 57
Avon Home, Mt. Auburn Street:—		
Building	$22,000 00	
69,751 feet of land	17,000 00	
Personal property	42,830 00	81,830 00
Holy Ghost Hospital for Incurables:—		
Building, Cambridge St.	35,500 00	
218,321 feet of land	43,000 00	78,500 00
Radcliffe College:—		
Personal property	156,000 00	
Two houses, laboratory and gymnasium, Garden and Mason Streets	42,000 00	
43,558 feet of land	36,000 00	234,000 00
The Corporation of the New Church Theological School:—		
Personal property	68,973 00	
Two houses and stable, 42–48 Quincy Street	16,000 00	
82,880 feet of land	48,000 00	132,973 00
Amount carried forward		$1,818,000 99

Amount brought forward		$1,818,000 99	
President and Fellows of Harvard College:—			
Personal property . .	$5,995,914 59		
Dormitories, chapels, laboratories, museums, lecture rooms and houses, including Ward Five property .	3,221,050 00		
		9,216,964 59	
			$11,034,965 58

Ward Two.

Baptist Church, Trustees of funds of:—			
Chapel, Hampshire St. . . .	$3,000 00		
2,560 feet of land	800 00		
		$3,800 00	
Broadway Baptist Church:—			
Church, W. S. Boardman Street	30,000 00		
13,620 feet of land . . .	8,000 00		
		38,000 00	
Cambridgeport Unitarian Society:—			
Church, N. S. Austin Street	18,000 00		
13,116 feet of land	8,000 00		
		26,000 00	
Harvard Street M. E. Society:—			
Church, N. S. Harvard Street	22,000 00		
10,030 feet of land	8,000 00		
		30,000 00	
St. Paul's A. M. E. Church:—			
Church, N. S. Hastings Street	2,000 00		
5,386 feet of land	2,000 00		
		4,000 00	
Hope Congregational Church:—			
Church, N. S. Harvard Street	8,000 00		
6,000 feet of land	3,000 00		
		11,000 00	
First Evangelical Congregational Society:—			
Church, W. S. Prospect Street	40,000 00		
19,153 feet of land	12,000 00		
		52,000 00	
Amounts carried forward		$164,800 00	$11,034,965 58

Amounts brought forward		$164,800 00	$11,034,965 58
First Free Baptist Church:—			
Church, N. S. Hampshire St.	$3,000 00		
3,851 feet of land	1,500 00		
		$4,500 00	
First Universalist Society of Cambridge:—			
Church, E. S. Inman Street	20,000 00		
15,312 feet of land	11,300 00		
		31,300 00	
St. Mary's Parochial School:—			
Church, W. S. Norfolk, corner Harvard Street	45,000 00		
Girls' School, S. S. Harvard Street	60,000 00		
Boys' School, E. S. Essex Street	18,000 00		
Sisters' Home, 50 and 52 Essex Street	7,000 00		
57,428 feet of land	20,000 00		
Theatre, E. S. Norfolk Street	15,000 00		
13,032 feet of land	6,500 00		
Gymnasium, E. S. Prospect Street	35,000 00		
11,370 feet of land	5,600 00		
House, 55 Norfolk Street	7,500 00		
7,500 feet of land	2,300 00		
		221,900 00	
Cambridge Home for Aged People, 157 Hancock Street:—			
Personal property	44,633 93		
12,094 feet of land	6,000 00		
One house	7,000 00		
		57,633 93	
First Reformed Presbyterian Church:—			
5000 feet of land		2,000 00	
St. Bartholomew's Church, W. S. Columbia Street	6,000 00		
5,562 feet of land	1,500 00		
		7,500 00	
Amounts carried forward		$489,633 93	$11,034,965 58

Amounts brought forward		$489,633 93	$11,034,965 58
First United Presbyterian Church:—			
Church, S. S. Cambridge St.	$6,000 00		
9,173 feet of land	4,600 00		
		10,600 00	
Holy Ghost Hospital for Incurables, Cambridge Street:—			
70,858 feet of land		10,000 00	
			510,233 93
Ward Three.			
First Methodist Episcopal Church:—			
Church, Cambridge corner Third Street	25,000 00		
5,000 feet of land	12,500 00		
		$37,500 00	
Mass. Baptist Convention, Tr:—			
Church, Cambridge and Fourth Streets	25,000 00		
6,000 feet of land	11,000 00		
		36,000 00	
Mission of the Ascension:—			
Church, Third and Thorndike Streets	5,000 00		
5,000 feet of land	4,000 00		
		9,000 00	
Second Universalist Society:—			
Church, Otis Street . . .	16,000 00		
5,000 feet of land	3,000 00		
		19,000 00	
Church of the Sacred Heart:—			
Church, Sixth, Otis, and Seventh Streets	70,000 00		
30,000 feet of land	12,000 00		
		82,000 00	
County of Middlesex:—			
Court House, Third, Otis, and Thorndike Streets . .	70,000 00		
Registry of Deeds, Second, Otis, and Third Streets .	175,000 00		
60,000 feet of land . . .	36,000 00		
		281,000 00	
Amounts carried forward . .		$464,500 00	$11,545,199 51

Amounts brought forward		$464,500 00	$11,545,199 51
Engine House, cor. Otis and Third Streets, 56,534 feet of land		55,800 00	
House of Correction, Jail, and shops, Thorndike, Third, Spring, and Second Streets	$250,000 00		
60,000 feet of land	24,000 00		
		274,000 00	
St. John Literary Institute:—			
Hall and stores, Cambridge Street, ⅔ value	20,000 00		
½ of 6,300 feet of land	4,700 00		
Cash assets	1,500 00		
		26,200 00	
			820,500 00
Ward Four.			
Cambridge Young Men's Christian Association:—			
Personal property	5,286 87		
Building, Massachusetts Av.	8,000 00		
Land	8,000 00		
		21,286 87	
Charles River Baptist Church:—			
Church, E. S. Magazine Street	25,000 00		
11,250 feet of land	3,000 00		
		28,000 00	
First Baptist Society:—			
Church, Central Square	80,000 00		
21,200 feet of land	20,000 00		
		100,000 00	
Grace M. E. Church:—			
Church, E.S. Magazine Street	15,000 00		
7,700 feet of land	5,000 00		
		20,000 00	
Massachusetts Baptist Convention — Union Baptist Church:—			
Church, Massachusetts Avenue	10 000 00		
3,900 feet of land	2,800 00		
		12,800 00	
Amounts carried forward		$182,086 87	$12.365,699 51

Amounts brought forward		$182,086 87	$12,365,699 51
Pilgrim Congregational Church:—			
Church, W. S. Magazine Street	$30,000 00		
8,885 feet of land	7,500 00		
		37,500 00	
Baptist Home, 168 and 170 Brookline Street, one house and stable	20,000 00		
Personal property	4,732 07		
		24,732 07	
The Lamson Home, 322 Brookline Street, one house	5,000 00		
5,000 feet of land	2,000 00		
		7,000 00	
Mount Olive Baptist Church S. S. State St.:—			
5,000 feet of land		2,500 00	
Pilgrim Congregational Society:—			
W. S. Magazine St. stable	$400 00		
3530 feet of land,	1,800 00		
		2,200 00	
Protestant Episcopal Church, Trustees of Donations to:—			
Church, S. S. Mass. Ave. (St. Peter's)	$10,000 00		
9,229 feet of land	9,000 00		
		19,000 00	
East End Union Mission:—			
Church, W. S. Brewery Street, on Rogers' land		3,500 00	
Rush African M. E. Zion Church:—			
Church, S. S. School Street	6,000 00		
2,760 feet of land	1,100 00		
		7,100 00	
St. Philip's Church, Episcopal:—			
Church, N. S. Allston Street	3,000 00		
4,686 feet of land	1,200 00		
		4,200 00	
Amounts carried forward		$289,818 94	$12,365,699 51

Amounts brought forward		$289,818 94	$12,365,699 51
Wood Memorial Church, Congregationalist:—			
Church, W. S. Columbia, corner Austin Street . .	$30,000 00		
7,500 feet of land	4,000 00	34,000 00	
			323 818 94

Ward Five.

Catholic Cemetery, Spruce St., 304,014 feet		$30,000 00	
North Avenue Congregational Society:—			
Church, Mass. Ave. . . .	$30,000 00		
13,430 feet of land	6,500 00	36,500 00	
Porter's Station Depot, Mass. Ave., Fitchburg Railroad Company		2,000 00	
Third Universalist Society:—			
Church, Mass. Ave. . . .	30,000 00		
11,958 feet of land	7,000 00	37,000 00	
St. James' Episcopal Society:—			
Church and chapel, Mass. Ave. and Beech Street . .	75,000 00		
21,207 feet of land (cemetery lot included)	10,000 00	85,000 00	
Abbott, Edward, Trustee for W. S. Beech:—			
Lot, 7,965 feet		2,400 00	
North Avenue Baptist Society:—			
Church, Mass. Ave. . . .	55,000 00		
38,525 feet of land	15,000 00	70,000 00	
Williams, John J., S. S. Rindge Avenue:—			
School house	40,000 00		
20,000 feet of land	4,000 00	44,000 00	
Amounts carried forward .		$306,900 00	$12,689,518 45

Amounts brought forward		$306,900 00	$12,689,518 45
Marist Fathers of Boston, French Roman Catholic, Church:—			
Church, N. S. Harvey St.	$40,000 00		
21,645 feet of land	3,000 00		
		43,000 00	
Weymouth, Harrison G. O. (disabled soldier) Orchard Street			
4,800 feet of land		1,300 00	
			351,200 00
			$13,040,718 45

REPORT OF THE COMMITTEE ON ACCOUNTS.

CAMBRIDGE, December 22, 1896.

To the Honorable the City Council: —

Under the provisions of Section 4 of Chapter 4 of the Revised Ordinances of 1892, the Committee on Accounts submits herewith its annual report for the year 1896.

The Committee has regularly met during the first week of each month, and has examined the books and accounts of the Auditor. They are kept with accuracy and neatness, and it gives your Committee much pleasure to make public commendation of the faithful manner in which he has performed his duties.

CHARLES P. KEITH,
HENRY WHITE,
CHARLES H. MONTAGUE,
WILLIAM F. BROOKS,
HAMILTON H. PERKINS,

Committee on Accounts For the Year 1896.

REPORT OF THE COMMITTEE ON FINANCE.

The annual report of the Committee on Finance for the year ending November 30, 1896 is submitted below.

The financial estimates in the aggregate as reported in February last were as follows: —

Appropriation and Revenue, 1896.

ESTIMATE OF REVENUE.

City Department accounts	$167,500 00	
Water Department accounts	299,000 00	
Other revenue and cash in Treasury	517,516 87	
Grand Total		$984,016 87

TOTAL AMOUNT OF APPROPRIATIONS RECOMMENDED.

City Department accounts	$1,956,750 51	
Water Department accounts	1,120,577 50	
Grand Total		$3,077,328 01

GENERAL RECAPITULATION.

Amount of estimate of expenses as before recited	$3,077,328 01	
Allowance for City Treasurer's estimate of uncollected taxes for the year 1896, remaining uncollected as of Nov. 30, 1896	175,000 00	
Total appropriations and liabilities	$3,252,328 01	
Less estimated revenue of all kinds of cash in the Treasury	984,016 87	
Leaving an amount to be provided for		$2,268,311 14

This amount was provided for as follows: —

1. By the issue of City Bonds, viz: —

Building Loan	$54,000 00	
Sewer Loan	39,000 00	
Street Loan	115,000 00	
		$208,000 00

Amount carried forward	$208,000 00

Amount brought forward		$208,000 00
2.	By the issue of Park Loan Bonds	240,000 00
3.	By the issue of Water Loan Bonds	666,000 00
4.	By assessment upon the polls and estates of the inhabitants of Cambridge, etc., for the current year, being amount required for municipal expenses for the year	$1,154,311 14
		$2,268,311 14

In accordance with the foregoing the following orders were reported and adopted by the City Council.

CITY OF CAMBRIDGE.

IN COMMON COUNCIL, February 11, 1896.

Ordered, That the sum of *One Million, One Hundred and Fifty-four Thousand, Three Hundred and Eleven Dollars and Fourteen Cents* ($1,154,311 14) be raised by assessment upon the polls and estates of the inhabitants of the City of Cambridge, and the estates of non-resident proprietors, according to law, to defray the current expenses of the City, for the financial year beginning December 1, 1895, and ending November 30, 1896.

CITY OF CAMBRIDGE.

IN COMMON COUNCIL, February 11, 1896.

Ordered, That the sums following be and are hereby appropriated towards defraying the expenses of the City of Cambridge for the financial year beginning December 1, 1895, and ending November 30, 1896.

Total amount of appropriations $3,077,328 01

This aggregate was increased from time to time as follows: —

ADDITIONS TO APPROPRIATIONS.

Ambulance Department	$ 52 39
City Clerk	207 04
" " Election Expenses	168 82
Clerk of Committees	25 34
Contingent Fund	1,139 18
Election Expenses: Supt. of Public Buildings	382 41
Interest	434 07
Land Damages	15,099 90
Overseers of the Poor: Almshouse	169 28
" " " " Farm & Ledge	394 33
" " " " House Offal	1,284 51
" " " " Outside Aid	2,031 69
Amount carried forward	$21,388 96

Amount brought forward	$21,388 96
Engine House No. 3	333 30
New School House, Ward One	5,000 00
School Houses: Care and Repair	544 83
Shooting Range at Lexington	525 00
School Department: Text Books, etc.	1,437 22
Sewers: Construction, General	10,000 00
" Maintenance	1,641 63
Street Department: Bridges	266.34
" " Collection of Ashes	348 76
" " McDonald Street	3,500 00
" " Boylston Street	4,440 00
" " Maintenance	95 98
Mass. Avenue: Storm Relief Sewer	1,600 00
	$51,122 02

NEW APPROPRIATIONS.

Land adjoining Putnam School House	$6,000 00
Broadway Storm Relief Sewer	14,000 00
Clay Lands	50,000 00
First Street Sewer	7,500 00
City Stable in Ward Five	44,000 00
Dunster Street widening	315 00
Eighth Street "	984 10
Eliot Street "	3,367 00
Webster Street surfacing	6,000 00
Heating apparatus, City Hall	3,129 00
New Latin School House	250,000 00
Total amount of appropriations	$385,295 10

The greater part of the total sum above given, was not expended, and will require re-appropriation during the next year.

RECAPITULATION.

Amount originally appropriated for City Department accounts		$1,956,750 51
Additional sums under various department heads		51,122 02
New appropriations		385,295 10
Total amount of appropriations during the year		$2,393,167 63
Less the following sums transferred to other appropriations: —		
From Lamp Department	$3,500 00	
" Police Department	1,500 00	
" City Buildings	333.30	
" St. Dept. Watering	1,500 00	
		6,833 30
Net appropriations for City Depts. in 1896		$2,386,334 33

Alderman Watson G. Cutter, President John L. Odiorne of the Common Council, and Councilman Albert S. Apsey, were appointed to examine the condition of the City Treasury at the close of business on Friday, November 30.

Their report is as follows: —

City of Cambridge, December 18, 1896.

To the Committee on Finance:

Gentlemen: — The Sub-Committee appointed to count and examine the cash in the hands of the City Treasurer at the close of business on November 30, 1896, would respectfully report: —

Nov. 30, 1896. Actual cash and business checks in City Treasurer's office were	$ 8,039 42	
Also a certificate from W. A. Bullard, Cashier of First National Bank of Cambridge, Mass., showing a balance (at close of business on November 30, 1896) to the credit of the City Treasurer of	343,221 32	
Also a certificate from Louis W. Cutting, Treasurer of the Cambridge Safe Deposit and Trust Co., of Cambridge, Mass., showing a balance (at close of business on Nov. 30, 1896) to the credit of the City Treasurer, of	51,017 86	
Making the total cash on hand		$402,278 60

Dec. 18, 1896. After the above examination by your committee, certain additional entries belonging to the financial year of 1896, were made, the receipts and expenditures which these same represent being as follows: —

RECEIPTS.

From Commonwealth of Massachusetts.:—

Account of Corporation Tax	$69,208 71	
Account of National Bank Tax being amount received for stocks of Massachusetts Banks outside of Cambridge owned by Cambridge residents	15,661 21	
Account of State Aid	13,819 85	$98,689 77
Which amount added to City Treasurer's balance of Nov. 30, 1896 as above, makes a total of		$500,968 37
Amount carried forward		$500,968 37

Amount brought forward		$500,968 37

EXPENDITURES.

Authorized additional payments as of Nov. 30, 1896, verified by your committee are as follows: —

Pay rolls for the last eight days in November 1896, as per Mayor's draft No. 326.	$12,011 03	
Account of Water Works Department Sinking Fund, being surplus in running accounts of the Water Works department, paid to the Trustees of Sinking Fund of Cambridge Water Works	3,688 19	
Paid Commonwealth of Massachusetts: —		
Account of National Bank Tax Refunding of taxes on non-resident owners of stock in Cambridge Banks	6,632 77	
Account of State Tax for year 1896	54,600 00	
Total		$76,931 99
Which deducted from foregoing receipts shows a balance of		$424,036 38
From this balance should be deducted the following amount held by the City Treasurer for account of a contract given by the City of Cambridge Water Board to the Groshen High Duty Pumping Engine Company, of New York City, N. Y., and being a guarantee for the performance of said contract: said amount however not being a legitimate part of the City Treasurer's accounts		$5,000 00
Showing a balance in City Treasurer's hands as of Nov. 30, 1896, of		$419,036 38

Your committee would further state that we carefully examined the total cash receipts for the financial year of 1896, as of the City Treasurer's books, and find the same to be as follows: —

Total cash receipts from all sources for the year ending Nov. 30, 1896 as per Treasurer's Ledger	$4,302,637 47
To this should be added cash balance of Nov. 30, 1895	376,950 09
Amount carried forward	$4,679,587 56

Amount brought forward	$4,689,587 56	
Total cash expenditures for the year ending Nov. 30, 1896, as per Treasurer's Ledger, the same authorized by sundry Mayor's drafts, which your committee examined	$4,260,551 18	
Which amount deducted from above total shows a cash balance as of Nov. 30, 1896, verified by our above report of examination, of		$419,036 38

WATSON G. CUTTER,
JOHN L. ODIORNE,
ALBERT S. APSEY.
Sub-Committee.

The foregoing report of the sub-committee was read and accepted at a meeting of the entire committee and ordered to be incorporated in its annual report. As these pages are intended to embrace only a brief statement of such financial proceedings as were forwarded under recommendations of the committee, figures have been omitted, inasmuch as they are given in full in the report of the City Auditor. Many important matters have been before the committee, many of which, relating to extensive public improvements, were brought to a successful conclusion.

JOHN R. FAIRBAIRN,
RUSSELL BRADFORD,
WATSON G. CUTTER,
CHARLES P. KEITH,
JOHN L. ODIORNE,
ALBERT S. APSEY,
WILLIAM R. DAVIS,
CORNELIUS MINIHAN,
DANIEL S. COOLIDGE,
WALTER C. WARDWELL.
Committee on Finance.

REPORT OF THE CITY TREASURER.

OFFICE OF CITY TREASURER, December 1, 1896.

To the Honorable the City Council:

In the following pages I submit a detailed report of the receipts and expenditures of the public funds by the Treasury Department, during the year ending November 30, 1896, including an account of all bonded and temporary loans negotiated in said year, and also a report on the Cemetery Fund.

Very respectfully,

WM. W. DALLINGER,
City Treasurer.

City of Cambridge in Account Current from December 1, 1895, to

Dr.

To authorized payments charged to City Accounts as follows:—	
Abatements, Taxes	$17,922 54
Ambulance Department	2,392 34
Assessors' Department	12,864 97
Auditing Department	3,522 30
Bridge Department	13,144 13
Cemetery Department	19,847 86
Cemetery Fund	2,585 50
City Clerk's Department	7,309 27
City Messenger's Department	2,715 86
Civil Service Department	256 22
Clay Lands	4,516 14
Clerk of Committees' Department	3,942 83
Contingent Fund	10,363 60
Contingent Fund—Fiftieth Anniversary	5,000 00
Election Expenses:—	
City Clerk	7,057 70
Registrars of Voters	3,718 10
Superintendent of Buildings	1,944 25
Engineering Department	11,155 53
Engineering Department — Assessors' Plans	2,687 56
Executive Department	5,372 35
Fire Department	84,843 54
Health Department	17,697 64
Inspection of Milk and Vinegar Department	1,522 06
Inspection of Provisions Department	793 40
Inspection of Wires Department	11,886 58
Interest	132,099 07
Lamp Department	67,626 33
Land Damages:—	
Boylston Street	15,114 03
Charles and Vine Streets	10,853 25
Davenport Street	200 00
Eliot Street	2,033 00
Magazine Street	500 00
Mt. Auburn Street	298 78
Seventh Street	10,001 50
Wyeth Street	354 00
Huron Avenue	6,929 99
Law Department	5,207 29
Loan:—	
Sewer	54,000 00
Temporary	786,000 00
Water	278,000 00
Overseers of Poor Department:—	
Almshouse	19,957 02
Assistant City Physician	1,500 00
Farm and Ledge	10,376 47
House Offal	26,294 44
Outside Aid	45,596 21
Park Department:—	
Construction	210,535 04
Interest on Park Loan	20,580 00
Maintenance	8,831 93
Sinking Fund	8,450 00
Plumbers' Examiners Department	116 39
Police Department	110,164 11
Public Library Department:—	
Building	168 94
Current Expenses	18,947 35
Public Property:—	
City Buildings, Care and Repairs	25,710 02
Heating City Hall	1,526 25
Incidentals	5,197 30
Land for School House, Ward Three	6,000 00
New Engine House, Ward Three	9,543 91
New Engine House, Ward Five	17,169 13
New Latin School House	1,375 00
New School House, Ward One	24,226 28
New School House, Ward Three	17,011 87
New Shooting Range	2,652 05
Sanitary Arrangements, School Houses	8,157 49
School Houses, Care and Repairs	52,712 84
Amount carried forward	$2,277,079 55

NOV. 30, 1896 (INCLUSIVE), WITH WM. W. DALLINGER, CITY TREASURER.

Cr.

By Receipts as follows: —

Ambulance Department	$186 00
Bridge Department	812 07
Cemetery Department	18,050 36
Cemetery Fund	2,585 50
City Clerk's Department	2,537 75
City Lands	2,516 00
Commissioners of Sinking Funds	54,000 00
Contingent Fund	654 70
Election Expenses — City Clerk	300 00
Engineering Department	3,645 51
Executive Department	22 50
Fire Department	140 00
Inspection of Milk and Vinegar Department	150 50
Inspection of Wires Department	266 88
Interest	57,734 21
Lamp Department	203 00
Law Department	2,100 00
Loan:—	
Building	103,000 00
Clay Land	50,000 00
Park	240,000 00
School House	6,000 00
Sewer	75,000 00
Street	137,000 00
Temporary	786,000 00
Water	665,100 00
Overseers of the Poor Department:—	
Almshouse	1,042 79
Farm and Ledge	13,263 10
House Offal	9,155 35
Outside Aid	5,757 62
Park Betterments	2,505 57
Park Department:—	
Construction	3,548 18
Maintenance	32 56
Plumbers' Examiners Department	30 00
Police Department	6,830 45
Public Library Department — Current Expenses	4,396 95
Public Property — City Buildings	3,672 73
School Department:—	
Salaries	1.814 16
Text-Books and Supplies	391 40
Sealer of Weights and Measures Department	492 40
Sewer Department:—	
Construction — General	11,418 66
First Street Sewer	8 00
Maintenance	1,384 72
State Aid Department	14,217 94
Stationery and Printing	1,110 91
Street Department:—	
Construction — First Street	290 90
Maintenance	2,996 74
Paving — Edgestones and Sidewalks	17,596 13
Watering	8,924 83
Street Improvements	2,360 00
Tax:—	
Corporation	71,949 32
National Bank	16,064 37
Tax Sale Surplus	30 00
Amount carried forward	$2,409,290 76

CITY OF CAMBRIDGE IN ACCOUNT CURRENT FROM DECEMBER 1, 1895, TO

Dr.

Amount brought forward	$2,277,079 55
School Department:—	
Board of Truants	$2,416 27
Flags	186 70
Incidentals	878 23
Salaries	249,639 51
Text Books and Supplies	18,808 45
Transportation of Pupils	453 00
Sealer of Weights and Measures Department	1,535 90
Sewer Department:—	
Broadway Storm Relief	12,920 18
Construction — General	32,483 29
First Street Sewer	7,497 24
Maintenance	20,090 61
Massachusetts Avenue Storm Relief	19,599 70
Metropolitan Connections	12,120 54
Tannery Brook Sewer	3,966 24
Sinking Funds:—	
General	85,765 00
Harvard Bridge	8,000 00
State Aid Department	23,096 22
Stationery and Printing	2,845 02
Street Department:—	
Bridges	4,490 67
Cleaning	23,482 10
Collection of Ashes	19,348 26
Construction:—	
Boylston Street	11,305 96
Charles and Vine Streets	3,344 23
Dunster Street	170 00
Eliot Street	1,303 39
First Street	29,999 57
McDonald Street	11,358 74
Seventh Street	1,071 39
Land for City Stable, Ward Five	11,000 00
Maintenance	70,531 89
New City Stable, Ward Five	2,055 12
Paving — Edgestones and Sidewalks	41,289 35
Paving — Gore Street	905 65
Resurfacing Webster Avenue	5,039 45
Watering	28,264 61
Widening Harvard Street	26 40
Tax:—	
County	78,321 11
National Bank	6,632 77
State	54,600 00
Tax Sale Surplus	58 34
Treasury Department	13,724 34
Water Works Department:—	
Construction:—	
General Account	20,326 13
Fresh Pond Land	98 50
Fresh Pond Reservoir	67,700 39
Hobbs Brook Reservoir	362,099 98
Payson Park Reservoir	333,383 09
Maintenance:—	
General Account	25,933 09
Office Expenses	5,269 21
Pumping	14,467 21
Removal of Mains	48,779 37
Stony Brook Reservoir	1,005 72
Interest on Water Loan	89,225 00
Rates, Fines, etc.:—	
Abatements	4,132 60
Refunds	2,652 49
Sinking Fund	81,230 69
Supplies	6,495 43
Abatements	47 29
Total Payments	$4,260,551 18
Cash Balance in Treasury, Nov. 30, 1896	419,036 38
	$4,679,587 56

Nov. 30, 1896 (inclusive), with Wm. W. Dallinger, City Treasurer.

Cr.

Amount brought forward	$2,409,290 76
Taxes:—	
1891	57 75
1892	167 20
1893	577 40
1894	4,147 80
1895	177.213 12
1896	1,084,553 80
Treasury Department	1,947 01
Trustees of Sinking Fund of Water Works	278,000 00
Water Works Department:—	
Construction:—	
General Account	21 00
Fresh Pond Land	300 00
Fresh Pond Reservoir	5.396 79
Hobbs Brook Reservoir	20,336 50
Payson Park Reservoir	21,137 90
Maintenance	504 58
Interest on Water Loan	1,899 34
Rates, Fines, etc.	289,820 67
Supplies	7.265 85
Total Receipts	$4,302,637 47
Cash Balance in Treasury, Nov. 30, 1895	376,950 09
	$4,679,587 56

Loans.

The transactions of the Treasury Department for the year 1896, as detailed in the foregoing report have been the largest in the history of the City for any one year. Large public works of a constructive character have been carried on calling for the payment of large sums of money. That the expenditures for these works should have been crowded into a year of so much political uncertainty and financial distrust was perhaps unfortunate, but the situation could not be foreseen. The work to which reference has been made has gone along so rapidly as to call for the unceasing issuance of bonded city loans. These loans have been negotiated by the selling of municipal bonds running for fifteen, twenty, thirty or forty years as the wisdom of the City Council deemed best. For the continuation of work on our Park system long term bonds (30 or 40 yrs.) have been issued. For our new Public Buildings, Street widenings, Sewers and the extension of our Water Supply, bonds running for twenty years have been issued, and for the "Clay-Land" work, bonds for fifteen years have been issued. A table is hereto appended which gives the particulars concerning the bonds negotiated, including the percentage of premium obtained as well as the interest or percentage basis of each sale. A second table is also appended giving the date, maturity and amount of each "temporary loan" negotiated, with the rate of interest paid on such loan.

Coming down from the end of the year 1895 when our bonds were in eager demand by investors at prices very flattering to our municipal pride, we found the early months of 1896 equally favorable for high premiums. In the month of March your treasurer sold $100,000 of forty year four per cent. "Park" bonds at a premium of thirteen and six hundred seventeen thousandths per cent. The basis being 3.38 per cent.; and in the following month $100,000 of twenty year four per cent. Water Loan bonds were sold at a premium of nine and fifty-seven thousandths per cent.; the basis being the same as the previous sale. The premium received at these two sales was the highest obtained in the year. The sales in July were made upon a basis of 3.45 and 3.50 per cent.; that is: one bidder purchased $100,000 on the 3.45 basis and the remainder of the bonds offered in the advertisement went to the next highest bidder on a 3.50 basis. When August came in a change had come over the money market, for bidders were very few in number and quite indifferent to buying. $50,000 of fifteen year bonds were offered and were sold to the highest bidder upon a 3.70 per cent. basis. During the months of September and October to ask for bids seemed impracticable, as assurances from all quarters indicated a stagnant market, but contracts had been made on some of our public works requiring large and frequent payments, and these demands could not well be postponed without breach of faith entailing pecuniary loss to the City, and your treasurer therefore deemed it wise — having already created a large "temporary loan" for the running expenses of the departments, — to negotiate a certain amount of bonded loans: first, to provide the funds so imperatively needed, and secondly, to reduce somewhat the very large amount of bonds which, by the demands of the "Budget," must be negotiated by the thirtieth day of November. In September, therefore, $100,000 of thirty year four per cent. "Park Loan" bonds were sold upon a basis of 3.80 per cent., and $100,000 of twenty year four per cent. Water Loan bonds upon a basis of 3.75 per cent.; and later in the same month recourse was had to short loans payable November 10th. But even here, money at six per cent. per annum was difficult to find in the open market, and personal application was made for temporary loans in small sums from our own Cambridge citizens, $86,000 being thus obtained. This was a repetition of the experience of the summer of 1893 when our own people, holders of small sums by their loans, patriotically saved the city treasury from embarrassment. No further attempts to borrow money were made until the result of the national election had been made known.

On November 7th, $125,000 of twenty and thirty year bonds were sold upon a 3.65 per cent. basis, and later in the same month $364,000 were sold at one time upon a 3.43 per cent. basis. Thus the bonded loans negotiated in the year amounted to $1,276,100, and the temporary loans to $786,000. The average interest basis upon which the entire bonded loan was sold, was about 3.52 per cent. The average rate paid on the "temporary loan" was 4.45 per cent., and this "temporary loan" was all paid before the close of the year. Under even normal conditions in the money market, for our city to have issued in one year $1,276,100 of its bonded obligations would have been a noteworthy event, but to have issued so large an amount in a year so memorable as 1896 and to have received no worse treatment at the hands of investors, than the foregoing narrative shows, ought to give us a reasonable degree of satisfaction. It may be added that our present bonded indebtedness [exclusive of the Water debt] is equal to 3.26 per cent. on our valuation for 1896.

Fees.

The amount of official fees received by me in the year amounted to $1,947.01, all of which was paid into the City Treasury as directed by the City Ordinance.

Cemetery Fund.

This fund is now sufficiently large to meet the annual demands upon it. It amounted November 30, 1896, to $36,347.48, and is invested as follows, viz: —

City of	Cambridge	4 %	registered	bond	maturing	Nov. 1, 1903,	for	$10,000 00
"	"	3½ %	"	"	"	Nov. 1, 1906,	"	7,000 00
"	"	4 %	"	"	"	Nov. 1, 1907,	"	2,000 00
"	"	4 %	"	"	"	Nov. 1, 1909,	"	2,000 00
"	"	4 %	"	"	"	May 1, 1910,	"	5,000 00
"	"	4 %	"	"	"	Oct. 1, 1925,	"	7,500 00
"	"	4 %	"	"	"	Oct. 1, 1916,	"	2,000 00
Deposited in Cambridgeport Savings Bank								847 48
								$36,347 48

Very respectfully,

WM. W. DALLINGER,

City Treasurer.

Particulars concerning the Bonds Negotiated in the Year ending November 30, 1896.

Date of Sale.	Amount.	Loan.	Time to Run.	Rate of Interest.	Purchaser.	Price Paid.	Basis.
1896.				Per Cent.			
March 14.	$100,000	Park	40 years.	4	Estabrook & Co.	113.617	3⅜ %
April 23.	100,000	Water	20 "	4	Estabrook & Co.	109.057	3⅜ %
July 6.	100,000	Water	20 "	4	Horace S. Homer & Co.	107.388	3½ %
July 6.	70,000	Building	20 "	4	Horace S. Homer & Co.	107.388	3½ %
July 9.	100,000	Water	20 "	4	Greenwich Savings Bank	107.910	3.45 %
Aug. 5.	50,000	Clay Land	15 "	4	Estabrook & Co.	103.657	3.70 %
Sept. 14.	100,000	Water	20 "	4	Estabrook & Co.	103.25	3.75 %
Oct. 2.	100,000	Park	30 "	4	Estabrook & Co.	103.25	3.80 %
Nov. 7.	40,000	Park	30 "	4	Cambridgeport Savings Bank	106.36	3.65 %
Nov. 7.	35,000	Water	20 "	4	Cambridgeport Savings Bank	104.94	3.65 %
Nov. 10.	50,000	Water	20 "	4	E. C. Stanwood & Co.	104.94	3.65 %
Nov. 17.	2,000	Street	20 "	4	City Treasurer of Cambridge in trust for "Cemetery Fund"	Par.	
Nov. 24.	33,000	Building	20 "	4	E. H. Rollins & Sons	108.29	3.43 %
Nov. 24.	75,000	Sewer	20 "	4	E. H. Rollins & Sons	108.29	3.43 %
Nov. 24.	135,000	Street	20 "	4	E. H. Rollins & Sons	108.29	3.43 %
Nov. 24.	6,000	School House	20 "	4	E. H. Rollins & Sons	108.29	3.43 %
Nov. 24.	115,000	Water	20 "	4	E. H. Rollins & Sons	108.29	3.43 %
Nov. 30.	65,100	Water	20 "	4	Trustees of Sinking Fund of Cambridge Water Works	108.29	3.43 %
	$1,276,100				*Average basis about 3.52%.*		

Recapitulation.

Building Loan	$103,000	Sewer	75,000
Clay Land Loan	50,000	Street	137,000
Park Loan	240,000	Water	665,100
School House Loan	6,000		
Total			$1,276,100

Temporary Loans — in anticipation of Taxes — negotiated in the year ending Nov. 30, 1896.

Date.	Maturity.	Amount.	
Jan. 28, 1896	June 1...	$50,000	Discounted at 5 % per annum.
Feb. 3, "	April 30...	50,000	With interest at 4 % " "
" 12, "	Oct. 12...	25,000	Discounted at 4¾ % " "
" 12, "	" 12...	25,000	" " 4¾ % " "
" 21, "	" 12...	10,000	With interest at 4 % " "
" 24, "	" 12...	25,000	" " 4½ % " "
" 24, "	" 12...	25,000	" " 4½ % " "
" 28, "	" 12...	7,600	" " 4 % " "
March 6, "	" 13...	25,000	Discounted at 4 % " "
" 6, "	" 13...	50,000	" " 4¼ % " "
" 11, "	" 13...	10,000	With interest at 4 % " "
April 8, "	" 13...	5,400	" " 4 % " "
May 1, "	" 13...	25,000	Discounted at 3.72 % " "
" 1, "	" 13...	25,000	" " 3.72 % " "
" 23, "	" 13...	50,000	With interest at 3½ % " "
June 1, "	" 13...	50,000	" " 3½ % " "
" 6, "	" 14...	50,000	" " 3 % " "
July 27, "	" 15...	100,000	" " 4 % " "
Aug. 11, "	" 14...	3,000	" " 4 % " "
" 20, "	" 15...	89,000	Discounted at 6 % " "
Sept. 2, "	Nov. 10...	6,000	With interest at 5 % " "
" 3, "	" 10...	12,000	" " 6 % " "
" 3, "	" 10...	10,000	" " 6 % " "
" 3, "	" 10...	8,000	" " 6 % " "
" 3, "	" 10...	10,000	" " 6 % " "
" 4, "	" 10...	10,000	" " 6 % " "
" 4, "	" 20...	20,000	" " 6 % " "
" 8, "	" 10...	10,000	" " 6 % " "
		$786,000	*Average rate 4.45 %.*

REPORT OF THE COMMISSIONERS OF THE SINKING FUNDS OF THE CITY OF CAMBRIDGE.

To the Honorable the City Council: —

The undersigned, Commissioners of the Sinking Funds of the City, herewith present their twenty-first annual report, covering the year ending November 30, 1896.

Dr.

The amount of the funds November 30, 1895, was	$511,816 53	
Received from the City the annual requirements for the year as appropriated by the City Council	101,850 00	
Received interest on invested funds	24,103 99	
		$637,770 52

Cr.

Amount paid as premium on investments purchased	$1,205 89	
Amount paid as accrued interest on investments purchased	896 39	
Amount paid to Treasurer of the City to meet the maturing bonded debt	54,000 00	
Leaving the amount of the funds November 30, 1896	581,668 24	
		$637,770 52

SECURITIES BELONGING TO THE SINKING FUNDS, NOVEMBER 30, 1896.

Cambridge Street Widening Loan, six per cent. bonds, due July 1, 1904	$90,000 00	
Cambridge Sewer Loan, six per cent. bonds, due July 1, 1904	2,000 00	
Cambridge Street Widening Loan, six per cent. bonds, due July 1, 1905	14,000 00	
Cambridge Sewer Loan, six per cent. bonds, due July 1, 1905	49,000 00	
Amounts carried forward		$155,000 00

Amounts brought forward		$155,000 00
City of Watham, four per cent. bonds, due Jan. 1, 1897	$6,000 00	
City of New Bedford, 3½ per cent. bonds, due April 1, 1897	15,000 00	
City of Dayton, four per cent. bonds, due Oct. 1, 1897	7,000 00	
Town of Hyde Park, four per cent. bonds, due Nov. 1, 1897	2,000 00	
City of Fitchburg, 3½ per cent. bonds, due April, 1, 1898	10,000 00	
City of Cleveland, four per cent. bonds, due Sept. 1, 1898	1,000 00	
City of Dayton, four per cent. bonds, due Oct. 1, 1898	4,000 00	
Town of Winchester, four per cent. bonds, due Oct. 20, 1898	13,000 00	
City of Providence, 4½ per cent. bonds, due June 1, 1899	64,000 00	
City of Brockton, four per cent. bonds due June 1, 1899	4,000 00	
City of Quincy, four per cent. bonds, due July 1, 1900	500 00	
City of Gloucester, four per cent. bonds, due May 1, 1901	4,000 00	
City of Brockton, four per cent. bonds, due June 1, 1901	3,000 00	
City of Quincy, four per cent. bonds, due July 1, 1901	2,500 00	
City of Brockton, four per cent. bonds, due Dec. 1, 1901	4,000 00	
City of Gloucester, four per cent. bonds, due May 1, 1902	4,000 00	
City of Quincy, four per cent. bonds, due July 1, 1902	7,500 00	
City of Cleveland, $3\frac{65}{100}$ per cent. bonds, due Sept. 1, 1902	1,000 00	
City of Brockton, four per cent. bonds due Dec. 1, 1902	4,000 00	
City of Brockton, four per cent. bonds, due June 1, 1903	4,000 00	
Amounts carried forward	$160,500 00	$155,000 00

Amounts brought forward	$160,500 00	$155,000 00
City of Quincy, four per cent. bonds, due July 1, 1903	7,500 00	
City of Brockton, four per cent. bonds, due Dec. 1, 1903	4,000 00	
City of Brockton, four per cent. bonds, due June 1, 1904	4,000 00	
City of Quincy, four per cent. bonds, due July 1, 1904	7,500 00	
City of Lawrence, four per cent. bonds, due July 1, 1904	12,000 00	
City of Pawtucket, four per cent. bonds, due July 1, 1904	15,000 00	
Town of Hopkinton, four per cent. bonds, due Sept. 30, 1904	5,000 00	
City of Brockton, four per cent. bonds, due Dec. 1, 1904	4,000 00	
City of Quincy, four per cent. bonds, due July 1, 1905	7,000 00	
City of Haverhill, four per cent. bonds, due Oct. 1, 1905	50,000 00	
City of Brockton, four per cent. bonds, due Dec. 1, 1905	4,000 00	
City of Gloucester, four per cent. bonds, due May 1, 1906	2,000 00	
City of Quincy, four per cent. bonds, due July 1, 1906	1,000 00	
Fitchburg R. R., four per cent. bonds, due April 1, 1907	50,000 00	
City of Pawtucket, four per cent. bonds, due July 1, 1909	30,000 00	
Town of Beverly, four per cent. bonds, due July 1, 1911	9,000 00	
City of Medford, four per cent. bonds, due July 1, 1911	26,000 00	
City of Medford, four per cent. bonds, due July 1, 1915	23,000 00	
City of Brockton, 3½ per cent. bonds, due July 1, 1916	5,000 00	
		426,500 00
		$581,500 00
Cash in Bank		168 24
		$581,668 24

CAMBRIDGE, December 11, 1896.

To the Board of Commissioners of the Sinking Funds of the City of Cambridge: —

Your committee appointed to examine the accounts of the Treasurer of the Funds, respectfully reports that his books are carefully kept and his accounts are correct and properly vouched. As usual, a computation of the cash and bond transactions of the year has been carefully made independently of the Treasurer's books and the present amount of the Funds, as shown by his books, is thus proved to be correct.

The following statement shows the transactions of the Treasurer and Sub-committee on investment during the year:—

BOND ACCOUNT.

Amount of bonds in the funds Nov. 30, 1895		$511,000 00	
Amount of bonds purchased for the funds during the year		93,500 00	
		$604,500 00	
Amount of bonds matured during the year		23,000 00	
Amount of bonds in the funds November 30, 1896 . . .			$581,500 00

CASH ACCOUNT.

Cash on hand Nov. 30, 1895 .	$816 53		
Cash received from the city derived from taxation . . .	101,850 00		
Cash received from interest on investments	24,103 99		
Cash received from matured bonds	23,000 00		
		$149,770 52	
Cash paid to redeem city debt	$54,000 00		
Cash paid for bonds purchased for investment	93,500 00		
Amounts carried forward .	$147,500 00	$149,770 52	$581,500 00

Amounts brought forward	$147,500 00	$149,770 52	$581,500 00
Cash paid for premium on bonds purchased	1,205 89		
Cash paid for accrued interest on bonds purchased	896 39		
		149,602 28	
Cash on hand Nov. 30, 1896 deposited in First National Bank of Cambridge			168 24
Total amount of funds Nov. 30, 1896			$581,668 24

FRANK A. ALLEN, } *Committee on Accounts.*
JOHN C. BULLARD, }

The bonded city debt which the foregoing sinking funds are to pay, matures as follows, viz:—

Aug. 1, 1898, City Hall Land Loan, four per cent.	$83,000 00
Nov. 1, 1899, Street Widening Loan, four per cent.	8,000 00
May 1, 1900, High School Loan, four per cent.	100,000 00
Jan. 1, 1901, High School Loan, four per cent.	100,000 00
July 1, 1901, High School Loan, four per cent.	10,000 00
July 1, 1901, School House Loan, four per cent.	50,000 00
July 1, 1901, Bridge Loan, four per cent.	15,000 00
May 2, 1902, Street Loan, four per cent.	55,000 00
May 2, 1902, Building Loan, four per cent.	20,000 00
Nov. 1, 1902, Paving Loan, four per cent.	50,000 00
Nov. 1, 1902, School House Loan, four per cent.	20,000 00
July 1, 1903, Sewer Loan, six per cent.	136,000 00
July 1, 1903, Street Widening Loan, six per cent.	10,000 00
Nov. 1. 1903, Building Loan, four per cent	40,000 00
July 1, 1904, Sewer Loan, six per cent.	295,000 00
July 1, 1904, Street Widening Loan, six per cent.	90,000 00
Aug. 1, 1904, City Loan, four per cent.	52,000 00
Amount carried forward	$1,134,000 00

Amount brought forward	$1,134,000 00
July 1, 1905, Sewer Loan, six per cent.	144,000 00
July 1, 1905, Street Widening Loan, six per cent.	14,000 00
Aug. 1, 1905, Cemetery Loan, four per cent.	65,000 00
Nov. 1, 1907, Sewer Loan, four per cent.	30,000 00
Nov 1, 1909, Sewer Loan, four per cent.	22,000 00
May 1, 1910, Sewer Loan, four per cent.	15,000 00
July 1, 1911, Sewer Loan, four per cent.	15.000 00
July 1, 1911, Clay Land Loan, four per cent.	50,000 00
Aug. 1, 1914, Building Loan, four per cent.	118,000 00
Aug. 1, 1914, Street Loan, four per cent.	30,000 00
Oct. 1, 1915, Building Loan, four per cent.	60,000 00
Oct. 1, 1915, Street Loan, four per cent.	60,000 00
July 1, 1916, Building Loan, four per cent.	70,000 00
Oct. 1, 1916, Street Loan, four per cent.	137,000 00
Oct. 1, 1916, Building Loan, four per cent.	33,000 00
Oct. 1, 1916, Sewer Loan, four per cent.	75,000 00
Oct. 1, 1916, School House Loan, four per cent.	6,000 00
Oct. 1, 1917, Harvard Bridge Loan, four per cent.	10,000 00
July 1, 1918, Harvard Bridge Loan, four per cent.	100,000 00
Sept. 1, 1918, Harvard Bridge Loan, four per cent.	100,000 00
March 1, 1919, Harvard Bridge Loan, four per cent.	115,000 00
Nov. 1, 1920, Harvard Bridge Loan, four per cent.	5,000 00
July 1, 1921, Harvard Bridge Loan, four per cent.	60,000 00
Aug. 1, 1923, Harvard Bridge Loan, four per cent.	10,000 00
Feb. 1, 1924, Park Loan, four per cent.	360,000 00
Aug. 1, 1924, Sewer Loan, four per cent	75,000 00
Oct. 1, 1925, Sewer Loan, four per cent.	60,000 00
Aug. 1, 1926, Park Loan, four per cent.	100,000 00
Oct. 1, 1926, Park Loan, four per cent.	40,000 00
Aug. 1, 1935, Park Loan, four per cent.	100,000 00
Feb. 1, 1936, Park Loan, four per cent.	100,000 00
	$3,313,000 00

The funded debt of the city has largely increased during the past year, City Bonds (four per cents) to the amount of $611,000.00 have been issued for the following purposes, viz.

Park Loan bonds, to the amount of $100,000.00. dated Feb. 1, 1896, payable in forty years.

Park Loan bonds, to the amount of $100,000.00, dated Aug. 1, 1896, payable in thirty years.

Park Loan bonds, to the amount of $40,000.00, dated Oct. 1, 1896, payable in thirty years.
Street Loan bonds, to the amount of $137,000.00, dated Oct. 1, 1896, payable in twenty years.
Building Loan bonds, to the amount of $70,000.00, dated July 1, 1896, payable in twenty years.
Building Loan bonds, to the amount of $33,000.00, dated Oct. 1, 1896, payable in twenty years.
Sewer Loan bonds, to the amount of $75,000.00, dated Oct. 1, 1896, payable in twenty years.
Clay Land bonds, to the amount of $50,000.00, dated July 1, 1896, payable in fifteen years.
School House bonds, to the amount of $6,000.00, dated Oct. 1, 1896, payable in twenty years.

Since our last report, there have matured $29,000.00 of Sewer bonds, issued July 1, 1876, and $25,000.00 of the same, issued November 1, 1886, which have been paid from this fund. The total amount of City Debt proper, now outstanding, is $3,313,000.00, from which deducting the present assets of the Sinking Fund at their par value, $581,668.24, leaves the net amount of bonded debt, November 30th, 1896, (exclusive of the Water Debt) $2,731,331.76, showing a net increase of debt for the year, of $487,148.29. The valuation of the City as returned by the Assessors for 1896, is $83,750,095.00, which shows an increase of $2,839,035.00, over the amount for 1895. The net debt is now about 3 and 26-100 per cent on the present valuation of the city. There will be due the fund from taxation for 1897, the sum of $116,495.00. We would also add that the fund is in excellent condition, all of the securities being first class, and that no loss of principal or interest has ever occurred through our investments.

Respectfully submitted,

CHAS. H. SAUNDERS,
FRANK A. ALLEN,
JOHN C. BULLARD,
GEO. H. HOWARD,
ANDREW J. LOVELL,
J. HENRY RUSSELL.

Commissioners
of the
Sinking Funds
of the
City of Cambridge.

CAMBRIDGE, Dec. 17, 1896.

REPORT OF THE TRUSTEES OF THE SINKING FUND OF THE CAMBRIDGE WATER WORKS.

To the Honorable the City Council:—

The undersigned Trustees of the Sinking Fund of the Water Works herewith submit their annual report of the fund committed by law to their charge. The report covers the year ending November 30, 1896.

Dr.

Amount of the fund November 30, 1895 .	$546,049 24	
Received during the year as follows:—		
From the treasurer of the City of Cambridge the annual required appropriation from the water rates	77,542 50	
Also from the same source the surplus remaining at the close of the year in the maintenance accounts of the Water Works	3,688 19	
From interest on investments	25,463 88	
		$652,743 81

Cr.

Amount paid as premium on investments purchased	$5,396 79	
Amount paid the city treasurer of Cambridge to meet maturing Water bonds .	278,000 00	
Balance representing the amount of the fund November 30, 1896	369,347 02	
		652,743 81

SECURITIES BELONGING TO THE SINKING FUND OF THE WATER WORKS NOV. 30, 1896.

Cambridge Water Loan, six per cent. bonds, maturing July 1, 1897	$16,000 00
Amount carried forward	$16,000 00

Amount brought forward	$16,000 00	
Cambridge Water Loan, five per cent. bond, maturing July 1, 1898	12,500 00	
Cambridge Water Loan, four per cent. bond. maturing Oct. 1, 1916	65,100 00	
Cambridge Harvard Bridge Loan, four per cent. bond, maturing Nov. 1, 1920	5,000 00	
Cambridge Contingent Loan, note dated Dec. 1, 1893, bearing four per cent. interest	200,000 00	
		$298,600 00
City of Lynn, four per cent. bond, maturing July 1, 1899	$11,000 00	
City of Boston, four per cent. bond, maturing April 1, 1900	4,000 00	
City of Providence, five per cent. bonds. maturing July 1, 1906	50,000 00	
		65,000 00
		$363,600 00
Cash in Bank		5,747 02
		$369,347 02

The bonded water debt which the foregoing fund is to pay, matures as follows, viz:

July 1, 1897, six per cent.	$16,000 00
July 1, 1898, five per cent.	12,500 00
Nov. 1, 1906, 3 1-2 per cent.	43,000 00
Oct. 1, 1907, four per cent.	75,000 00
Oct. 1, 1907, four per cent.	15,000 00
Nov. 1, 1907, four per cent.	22,000 00
July 1, 1908, four per cent.	46,000 00
Aug. 1, 1908, four per cent.	25,000 00
July 1, 1909, four per cent.	20,000 00
May 1, 1910, four per cent.	133,000 00
May 1, 1910, four per cent.	155,000 00
Amount carried forward	$562,500 00

Amount brought forward	$562,500 00	
July 1, 1910, four per cent.	75,000 00	
Sept. 1, 1910, four per cent.	125,000 00	
Jan. 1, 1911, four per cent.	20,000 00	
Oct. 1, 1911, four per cent.	35,000 00	
Jan. 1, 1912, four per cent.	150,000 00	
May 2, 1912, four per cent.	75,000 00	
Nov. 1, 1912, four per cent.	45,000 00	
Feb. 1, 1913, four per cent.	100,000 00	
Aug. 1. 1913, four per cent.	35,000 00	
Aug. 1, 1913, four per cent.	15,000 00	
April 1, 1915, four per cent.	200,000 00	
Aug. 1, 1915, four per cent.	200,000 00	
April 1, 1916, four per cent.	100,000 00	
July 1, 1916, four per cent.	200,000 00	
Aug. 1, 1916, four per cent.	100,000 00	
Oct. 1, 1916, four per cent.	265,100 00	
April 1, 1924, four per cent.	300,000 00	
		$2,602,600 00

WM. A. BANCROFT,
JOHN L. ODIORNE,
WM. W. DALLINGER.

Trustees of the Sinking Fund of the Cambridge Water Works.

REPORT OF THE SUPERINTENDENT OF STREETS.

To the Honorable, the City Council:—

Gentlemen:—In accordance with the requirements of the ordinance relating to streets, I have the honor to submit my third annual report, for the financial year ending November 30, 1896.

The accounts of the various appropriations of this department are here given in alphabetical order, as they appear on the City Auditor's monthly statement.

Bridges.

Appropriation,		$4,266 34
EXPENDED.		
Draw-tenders' salaries,	$2,971 89	
Labor, repairs,	545 06	
Lumber, repairs,	648 37	
Supplies,	101 02	
		$4,266 34

The above amount has been expended, as shown, for payment of salaries of draw-tenders and the care and repairs of the several bridges of which this department has charge.

The annual inspection of the bridges in charge of this department was made at the close of the year, by the City Engineer's Department, the report of which is as follows: —

Report on Examination of Bridges in Cambridge, Dec. 7, 1896.

Walden Street Bridge.

This bridge will need replanking during the coming season, the surface being about 70 x 24 ft. No conveniences for examining the floor timbers were at hand, but the timbers as seen from the R. R.track appeared strong and sound.

The entire surface of iron work on the bridge should be repainted at once. That portion which has been exposed to the steam and gases from passing engines is wholly destitute of paint and very badly flaked with rust. Unless this part of the bridge is speedily protected the rust will so weaken the members directly over the tracks as to render the bridge liable to failure.

Huron Ave. at Watertown Branch F. R. R.

The two-inch plank on this bridge will need replacing during next summer, but all other woodwork is sound and in good condition. The area to be replanked is about 40 x 100 ft.

The iron work above the roadway is in need of scraping and painting; that below the road is in fair condition except the portion above the R. R. tracks which has begun to scale quite badly and should have immediate attention.

Huron Avenue and Fountain Terrace.

The planking of this bridge will have to be removed during the coming year; all other woodwork is in good order, and will last for some years yet. Area for replanking 40 x 80 ft.

The fence on this bridge should have two coats of paint and other iron work should be given one coat.

Huron Avenue and Wellington Brook.

The abutment walls of this bridge are in a very bad condition, about a third of one having fallen into the brook. The bridge should be entirely rebuilt.

The surface of plank at this bridge is 25 x 18 ft. The walls are 25 ft. in length, and two fences, each about 50 x 3.5 ft. should be built as guards for travel.

Boylston Street Bridge.

The pier of this bridge needs new timbers on a part of both front and rear sides — one piece of 30 ft., 10 x 12 in.; one strip 100 ft., 4 x 6 in., also about 30 ft. x 6 ft. of spruce plank. Draw 20 x 20 ft. — Bridge 87 x 28 ft. The fence and the drawtender's house should be repainted. The stringers under the bridge floor seem generally in good order, but the timbers on either side (at the fences) are badly decayed and should be replaced. The paul in the hoisting gear is broken ; new houses should be built for the use of the men who tend the draws, but if this bridge is to be soon remodelled the present house would probably answer.

Western Avenue Bridge.

The fences and Samson posts need repainting, as does the house of the draw-tender. The box over the gears needs repairing, and the bridge will have to be replanked next Spring. Plank needed 20 x 18 ft., — 20 x 5 ft., on draw. Plank needed 150 x 5 ft. — 150 x 23 ft. on bridge.

River Street Bridge.

One timber at the draw was found badly decayed. It came under the south rail of the R. R. track and should be replaced by a sound stick. The spruce plank on the bridge will have to be relaid and the fences, tender's house and Samson posts should be repainted. Plank needed 20 x 22 ft. — 14 x 340 ft.

Brookline Street Bridge.

Like the other bridges on the river this needs painting, the fences and Samson posts being nearly free from paint. — A new house for the draw-tender is needed (about 12 x 8 x 8 ft.) with pitch roof, shingled — to be placed near the draw and furnished with bunks for men staying there during the night. The bridge will also need replanking over its entire surface and a number of stringers must be replaced as they are now badly decayed. The area for replanking is about 162 x 25 ft. — 162 x 25 ft. x 3 in. and 162 x 8 ft. x 2 in.

Sixth Street Bridge.

One bad stringer was found on the north end at the west side of the bridge — the other timbers were in good condition. The fences and Samson posts need painting and the bridge will have to be replanked twice during the year.

Area of planking 42 x 24 ft. — 42 x 22 ft. — 36 x 32 ft.

Third Street Bridge.

This bridge will need replanking twice during the season (areas 38 x 46 ft. — 38 x 33 ft. — 32 x 41 ft.) and should be repainted.

Badly decayed timbers were found on both sides of the draw and some of the piles show signs of decay. The bridge should be rebuilt (above the caps) next summer.

First Street Bridge.

This bridge needs repainting and will need replanking twice within the year.

Area for replanking 38 x 33 ft. — 38 x 46 ft. — 32 x 41 ft.

Massachusetts Ave. and Alewife Brook.

The only work needed here is the repainting of the fence, though a little painting of the masonry would improve its appearance.

The above report is printed in full this year for the reason that we have reached a point where a considerable outlay must be made, to make these bridges even safe for public travel.

For the last few years the appropriations for this work have been limited to an annual amount barely sufficient for the running expenses and replanking of one or two of the most badly worn bridges but in the face of the above report, it seems to me that this year a more comprehensive arrangement must be made, and an amount appropriated large enough to put all the bridges in thorough repair.

Bridges Maintained Wholly or in Part by the City of Cambridge, and in Charge of Street Department.

Name of Bridge.	Location.	Material in Substructure.	Material in Superstructure.	Date of First Construction.	Total Length of Bridge.	Length in Cambridge.	Width of Bridge.	Width of Draw.	Draw Opening.	Surface Area of Bridge in Cambridge.
Boylston Street Bridge...	over Charles River.......	Oak Piles.........	Wood.....	1662	208.0	106.0	28 ft.	20 35	36 ft.	Sq. ft. 2,830
Brookline Bridge.........	over Charles River......	Oak Piles.........	Wood....	1850	750.0	175.0	31	24	36	5,299
First Street Bridge.......	over Broad Canal.........	Oak Piles.........	Wood.....	1892	115.0	115.0	45	32	36	4,707
Fresh Pond Ave. Bridge.	over Pipe Way...........	Granite Masonry.	Steel......	1893	75.0	75.0	58			4,350
Huron Street Bridge......	over Watertown Branch of the Fitchburg R. R...	Granite Masonry.	Steel......	1893	93.63	93.63	58			5,430
River Street Bridge.......	over Charles River.......	Oak Piles.........	Wood.....	1810	345.0	187.0	40	28	36 .25	7,263
Sixth Street Bridge.......	over Broad Canal........	Oak Piles	Wood.....	1873	79.5	79.5	42	32	32 .5	3,014
Third Street Bridge.	over Broad Canal........	Oak Piles	Wood.....	about 1832	81.0	81.0	35	27	30	2,595
Walden Street Bridge....	over Fitchburg R. R......	Granite Masonry.	Steel......	1892	64.0	64.0	42			2,688
Western Avenue Bridge..	over Charles River......	Oak Piles........	Wood.....	1824	330.0	168.0	34	27.5	36	5,595

City Stable and Yard (Ward Five).

Appropriation		$44,000 00
EXPENDED.		
Land	$11,000 00	
Plans, etc.	418 12	
Foundation	1,106 25	
Labor on yards and sheds	489 73	
Lumber, cement, etc., for sheds	466 35	
Carpentry, on sheds	266 01	
Roofing, sheds	122 82	
Masonwork, hardware, etc.	85 86	
		13,955 14
Balance		$30,044 86

As was stated in last year's report, the construction of the proposed parkway along the Charles River, compels us to vacate the land and buildings owned by the Cambridge Gaslight Company, bordering on the River at the foot of Ash Street in Ward One, which we are at present occupying as a yard and stable for the second district, (Wards One and Five). In accordance with the above statement, the City Government early in the year authorized the Committee on Roads and Bridges to select a site suitable for the purpose, and, upon the report of the Committee, an order was approved March 4th, authorizing the purchase of a lot of land consisting of seven acres, located at the foot of Raymond Street in Ward Five, at an expense of $11,000.00.

On July 2d, an order was approved making a further appropriation of $33,000.00 for the construction of the buildings and grading the land for yard purposes.

Under the direction of the Superintendent of Buildings, plans for the stable were drawn by Mr. George Fogerty and the contract for the same awarded to Messrs. Mack and Moore of Boston, the contract for the foundation having been previously awarded to Charles Linehan of Cambridge.

The City Solicitor having ruled at this point that the appropriation should be expended by the Superintendent of Streets, the plans, contracts, etc., were all turned over to this department and the work is to be done under our supervision.

The stable to be built of brick with red stone trimmings, is to be 145 ft. long, by 108 ft. wide, one and one-half stories above the basement, and will accommodate forty-seven horses. Provision is made in the basement for a large cart and wagon room, harness room, machine shop and tool room; in addition to the stalls on the main floor, are the office, carriage room and a well-equipped washroom; ample room is given in the loft, in addition to space for grain and hay, for the storage of carriages, sleighs, etc. The contracts for the stable and foundation amount to $27,875.00 and require that the stable shall be completed on or before May 1st, 1897.

Very little has been done as yet, except in a temporary way towards grading up the land for the yard. A shed 149 ft. long, for the housing of watering-carts, tip-carts, etc., has been constructed with two steam roller houses and blacksmith shop adjoined. A new stone crusher has been purchased and is to be located in the yard, the boiler, engine, elevator and bins formerly located at the Tannery Street Ledge being transferred there. A pair of standard scales of twelve tons capacity is to be set in the yard for weighing field-stone, etc. One side of the yard abuts on the line of the Fitchburg Railroad for a considerable distance, and at the request of the department, a spur track leading into the yard has been laid at a very slight expense to the city, which will enable us to handle stone, gravel, etc., coming over that line at a great saving in both labor and teaming.

When completed we shall have a well equipped plant, in my judgment second to none in this vicinity.

Cleaning Streets.

Appropriation		$23,000 00
EXPENDED.		
Labor, ...	$18,274 07	
Teaming, ...	4,325 18	
Tools and Supplies, ...	400 61	
		$22,999 86
Balance, ...		$ 14

The above amount has been expended, as shown, for labor, teaming and materials used in cleaning streets.

The cost of taking care of snow and ice this year, which is included in the above account, was $3,557 62, ($2,188 00 in District No. 1, and $1,369 62 in District No. 2,) which was considerably less than it has been for some years, and about $2,000 less than the amount expended for that purpose last year.

The three general cleanings of all the streets have been made as usual, the paved streets have been swept once every three weeks and crossings have been cleaned whenever necessary.

Two years ago we inaugurated the section system, so called, of cleaning every day certain important sections of the city and having a man in each section responsible for its appearance at all times.

Beginning with six men in 1894, we doubled the number in 1895 and this year increased the force to fifteen. This system has worked so satisfactorily and the results have been so gratifying, that I trust the appropriation may be made large enough next year to increase the force to twenty-five men.

The sections cared for under this plan were as follows: —

Massachusetts Ave. from Alewife Brook to Porter's Station.

Massachusetts Ave. from Porter's Station to Garden Street.

Massachusetts Ave. from Garden Street to Dana Street, including Harvard Square and Brattle Square.

Massachusetts Ave. from Dana Street to Central Square.

Massachusetts Ave. from Central Square to Lafayette Square, both inclusive.

Main Street from Lafayette Square to West Boston Bridge.

Cambridge Street from Dana Street to Windsor Street.

Cambridge Street from Windsor Street to Bridge Street.

Second, Third, Otis and Thorndike Streets, around County Buildings.

Mt. Auburn Street from Brattle Square to Watertown line.

Brattle Street from Brattle Square to Mt. Auburn Street.

Magazine Street, entire length.

Harvard Street from Dana Street to Main Street.

Garden Street and Concord Avenue.
Bridge Street and Prison Point Street.

By the saving in the cost of care of snow and ice, as shown on the preceding page, we were enabled to do more regular cleaning than usual, as will be seen by the following comparative statement of street scrapings collected during the past two years, the appropriation being the same for each year.

Date.	Loads Collected.	Loads Sold.	Carted to Dumps.	Carted to Parks.
1895	13,984	3,423	10,096	465
1896	15,339	3,790	11,549	——

Another year's trial has demonstrated beyond doubt, the practical assistance in keeping our streets clean, of the receptacles placed by the department in various parts of the city to receive scraps of paper, etc., which were formerly thrown on the sidewalks or into the streets. That the request to use these receptacles has been quite generally complied with is shown by the frequency with which it has become necessary to empty them.

A more general co-operation on the part of the public with us in this plan is earnestly desired, and additional receptacles will be provided when necessary. I would also again urge the discontinuance of the sweeping of dirt from stores and dwellings on to the sidewalks and into the gutters, which is still a great source of annoyance to the department.

In connection with this subject I would most respectfully recommend that the distributing of handbills and flyers in the public streets be in some way regulated and placed under proper restrictions. In certain sections of the city this practice has become a positive nuisance, and as it frequently happens that these hand-bills, etc. are distributed on Saturday afternoon or evening, after the section man has left the street in good condition, it is very discouraging on Sunday morning, when the uncleanliness of the streets is so much more noticeable, to find the sidewalks and gutters full of dirty paper and the streets in such an unsightly condition. I trust that some steps may be taken early in the year towards remedying this unnecessary cause of annoyance and expense.

Collection of Ashes.

Appropriation		$19,348 26
EXPENDED.		
Labor	$16,385 75	
Hay, and Grain	2,009 74	
Harnesses, etc.	58 50	
Horses	740 00	
Wagons, covers, etc.	154 27	
		$19,348 26

The above amount has been expended, as shown, for labor, care and feed of horses, and expenses incidental to the daily collection of ashes, and the collection of yard rakings, tree trimmings, brush, etc., as required by the ordinances, during the months of April, May and November.

During the year we have been obliged to purchase four new horses for this department, two having died, and one beyond usefulness for this work. We shall probably be compelled to purchase two more during the coming year.

The present regular force in this department is sixteen teams, eight helpers and two dumpmen, and, during certain seasons, two more teams and a helper are added.

During the past year we have collected and disposed of 35,938 loads of ashes, etc., an average of about 118 loads per day. 10,675 loads were sold, and the remainder, 25,263 loads, were carted to the several dumps.

The work of this department has increased to such an extent that early in the year we were compelled to issue a notice requiring all ashes, rubbish, etc., to be put in proper receptacles and placed on the sidewalk adjoining the premises. This was made necessary because of the fact that where ashes, etc. were put out on the street in bulk, we were not only obliged to expend extra time shoveling them into the carts, but were compelled also to clean the street for a considerable distance in each direction, thus adding materially to the cost of the work.

The Superintendent of Buildings estimates, by the number of building permits granted during the year, that there is an increase of about fifteen hundred families over last year. Taking this into consideration with the fact that we were unable to do the work within the regular appropriation this year, it seems evident that a larger amount must be allowed for this work.

The condition of the ash dumps in the several sections of the City has been greatly improved; the flats at the old City Wharf on Main Street, near Sixth Street, are rapidly being filled up, and a special officer is detailed there to prevent the accumulation of offensive matter.

Boylston Street (Widening).

Appropriation		$13,558 50
EXPENDED.		
Labor	$4,838 20	
Teaming	2,803 52	
Edgestone	1,510 78	
Field stone and cracked stone	2,352 44	
Granite flagging	201 01	
Carpenters, cutting down buildings, etc.	673 93	
Bricks	546 87	
Gravel, mason-work and cement	173 06	
		13,099 81
Balance		$458 69

By an order dated December 24th, 1895, Boylston Street was widened on the westerly side so as to make a street sixty feet wide, and sufficient land was taken on the easterly side to straighten the line of Harvard Square between Boylston and Dunster Streets. Various plans and suggestions were offered, estimates were obtained and a number of hearings were held, resulting finally in the action above stated.

The work of cutting down and moving buildings on the line of the widening has been completed, the greater part of it being done by this department. The street has been brought to grade and macadamized, edgestones have been set and gutters laid on both sides the entire length, and the street railway tracks relocated. In addition to the main sewers, a surface drain leading into Charles River, with a sufficient number of catch-basins, was built from a point near Eliot Street to the Parkway at a cost of $1,486.51, three-fifths of the expense of which was paid by the Park Department, who also removed three trees on the line of the widening.

Before beginning work on the street, the Metropolitan Water Board was notified of the proposed widening, and the opportunity given them to lay their 48 inch supply main through the street. The pipe was laid in a very thorough manner and there seems to be no danger of the surface above it settling.

The balance unexpended will be carried over to next year's accounts for the purpose of laying brick sidewalks where needed on this street, a sufficient number of bricks having already been purchased.

Construction of Charles and Vine Streets.

Appropriation		$2,436 70
EXPENDED.		
Labor	$484 00	
Teaming	698 64	
Stone	1,252 29	
		2,434 93
Balance		$1 77

These two streets were widened to a width of fifty feet each, between Second Street and Third Street, and laid out by an order dated October 23d, 1895. The amount shown above was the balance carried over from last year's appropriation for the extension and construction of these two streets, begun in the latter part of 1895. Both of these streets have been laid out to the width named and quite thoroughly macadamized. With the comparatively light traffic on them, no repairs will be necessary there for some time.

Dunster Street (Widening).

Appropriation		$315 00
EXPENDED.		
Labor	$170 00	
Circle stone	7 81	
		177 81
Balance		$137 19

The above appropriation was made for the purpose of widening the sidewalk at the south-west corner of Harvard Square and Dunster Street, made necessary by the widening of Boylston Street.

On account of the frost, the work was not entirely completed and the balance will be carried over so that it may be finished early next spring.

Eighth Street (Extension).

Appropriation	$984 10

By an order approved Oct. 22nd, 1896, Eighth Street was extended from Thorndike Street to Spring Street, and laid out to a width of 40 feet between the points named. As the order was passed too late to enable us to do any work on the street, no order of notice has yet been issued to the abuttors to move their buildings. The appropriation will therefore be carried over and the street will be constructed as soon as the frost gets out of the ground next season.

Eliot Street (Widening).

Appropriation		$3,367 00
EXPENDED.		
Labor	$678 24	
Teaming	454 51	
Edgestone	323 38	
Field stone and Broken stone	704 72	
Gravel	127 10	
Cement	5 00	
		2,292 95
Balance		$1,074 05

In connection with the widening of Boylston Street, and the relocation of the street railway tracks there, the line of Eliot Street was changed so as to give a width of 70 feet its entire length, by an order approved March 25th, 1896.

The street has been brought to grade and macadamized, edgestones set and gutters built on both sides.

The unexpended balance will be used next year in laying brick sidewalks, which, on account of numerous delays, we were unable to do this year.

First Street (Paving).

Appropriation		$30,000 00
EXPENDED.		
Labor	$7,016 25	
Teaming	2,038 49	
Paving Blocks	13,794 04	
Edgestones	1,698 30	
Flagging	3,363 78	
Gravel	2,088 71	
		29,999 57
Balance		$ 43

This street has been paved with a very superior quality of granite blocks, from the Broad Canal to Cambridge Street. Edgestones have been set on both sides of the street its entire length, crossings constructed at the intersecting streets, a sufficient number of catch-basins have been constructed, and sewers, water and gas mains have been laid.

The amount of heavy traffic on the street since its completion seems to demonstrate the importance of this improvement, as a new thoroughfare from the eastern end of Ward Three has been provided, which will undoubtedly materially assist in developing that section of the city.

It has been the custom for a number of years when making up the annual appropriations to provide for paving or repaving a portion of one of our main thoroughfares or some unusually, heavily traveled street.

In anticipation of a continuance of this policy, I renew the recommendation made in last year's report, that Main Street, from the Bridge line to Columbia Street, be repaved during the coming year.

There is probably no street in the city where there is a greater amount of heavy travel, and its condition at present is decidedly unsafe, certain portions of it in fact, being positively dangerous.

Portland and Prospect Streets, both heavily traveled cross-streets, and Cambridge Street, from Prospect Street to its westerly end, should be paved as soon as possible.

Construction of Aberdeen Avenue (formerly called McDonald Street).

Appropriation,		$9,833 42
EXPENDED.		
Labor	$4,088 91	
Teaming	2,637 88	
Stone	2,440 81	
Gravel	663 00	
		$9,830 60
Balance,		$2 82

By an order dated July 9, 1895, this street was laid out a hundred feet wide, from Mt. Auburn Street to Huron Avenue, and under an order dated November 20, 1895, the name was changed from McDonald Street to Aberdeen Avenue.

The original appropriation for the construction of this avenue, was $15,914 50 of which $9,581 08 was expended last year. When we began work there early in the present year, it was found that the balance carried over, $6,333 42, would not be sufficient to complete the construction of the avenue, and 3,500 00 additional was appropriated for that purpose, making the entire cost of construction $19,411 68.

This avenue is constructed after the manner of some of the well-known boulevards in this vicinity and in appearance and construction will compare favorably with most of them.

A twenty-four foot road space in the centre is reserved for the street-car system; two macadamized driveways, each twenty-six feet wide, have been constructed in a thorough manner, and edge-stones have been set on both sides of the avenue its entire length. The sidewalks have been made twelve feet wide each, consisting of a walk eight feet wide, with a sodded space next to the edge-stone of four feet, in which the Park Department have set out sixty-four shade trees.

Sewers, water and gas-pipes have been laid, the street railway tracks and poles set, and there seems little reason to suppose that the surface need be disturbed for a considerable time.

This avenue is now one of the best constructed and finest in the city; it connects the street-car system on Mt. Auburn Street with that on Huron Avenue, and forms a splendid approach to the Fresh Pond Park.

Electric cars began running there on June 29th last, and I am informed that during the summer it was one of the most popular routes for pleasure riding on the Cambridge Division.

Seventh Street (Extension).

Appropriation		$1.075 00
EXPENDED.		
Labor	$316 98	
Teaming	438 75	
Stone	252 91	
Gravel	62 75	
		$1,071 39
Balance		$3 61

By an order dated October 9, 1895, Seventh Street, from Thorndike Street to Spring Street, was laid out to a width of forty feet, and the above appropriation made for construction.

As the time within which the buildings on this street should be moved did not expire until it was too late to do any street work, the amount appropriated was carried over to this year's accounts. The buildings have been moved back, cellars filled, and the street brought to grade and well macadamized.

Maintenance.

Appropriation		$70,095 98
EXPENDED.		
Salary of Superintendent	$2,000 00	
Clerical assistance	1,458 00	
Labor	34,459 26	
Teaming	3,183 70	
Amount carried forward	$41.100 96	

Amount brought forward . .	$41,100 96	
Stone and gravel	14,424 97	
Hay and grain	5,193 72	
Steam rollers, repairs and supplies . . .	596 73	
Stone crushers, repairs and supplies . . .	1,620 67	
Fuel and lights	1,917 20	
Hardware, tools, etc.	1,067 34	
Horses, harnesses, carriage and wagon repairs, etc.	2,543 24	
Telephones, office-supplies, Committee expenses, rent of stable, etc.	1,296 79	
Miscellaneous	334 36	
		70,095 98

The above summary briefly shows the expenditures under this appropriation; for more detailed accounts of the same, see City Auditor's report. This appropriation covers all the running expenses of the department, and while it is commonly understood that the amount appropriated is for the maintenance of the streets, as a matter of fact but little more than one-half the amount is available for actual street work.

The following schedule shows the streets graded in each of the districts, an itemized account of the cost of each street, and the total cost in each district: —

District No. 1 (Wards 2, 3 and 4).

Osborn Street from Main Street to State Street:—		
Labor	$2 00	
Teaming	2 25	
Rolling	7 00	
Cracked Stone	7 50	
		$18 75
Windsor Street from Main Street to Mass. Ave:—		
Labor	$33 50	
Teaming	20 25	
Rolling	5 25	
Cracked Stone	97 50	
		156 50
Amount carried forward . . .		$175 25

Amount brought forward		$175 25
Franklin Street from Brookline Street to Sidney Street:—		
Labor	$17 00	
Teaming	63 00	
Gravel	31 75	
		111 75
Sixth Street from Gore Street to Otis Street:—		
Labor	$27 00	
Teaming	59 63	
Rolling	26 25	
Cracked Stone	292 50	
		405 38
Hancock Street from Green Street to Franklin Street:—		
Labor	$4 00	
Teaming	18 00	
Gravel	10 00	
		32 00
Leonard Avenue, entire:—		
Labor	$58 00	
Teaming	101 25	
Rolling	14 00	
Cracked Stone	520 00	
Gravel	5 50	
		698 75
School Street from Clark Street to Winsor Street:—		
Labor	$12 50	
Teaming	46 13	
Rolling	1 75	
Gravel	10 75	
		71 13
Clark Street from Main Street to School Street:—		
Labor	$10 50	
Teaming	46 13	
Rolling	1 75	
Gravel	18 50	
		76 88
Cambridge St., from Prospect St. to Dana St.—		
Labor	$480 00	
Teaming	607 50	
Rolling	138 25	
Cracked Stone	2,015 00	
		$3,240 75
Amount carried forward		$4,811 89

Amount brought forward		$4,811 89
Ninth St., from Spring St. to Cambridge St.:—		
Labor	$8 00	
Teaming	2 25	
Rolling	10 50	
		20 75
(No material used, street picked up and rolled.)		
Rockwell Street (entire):—		
Labor	$122 00	
Teaming	173 25	
Rolling	26 25	
Cracked Stone	125 00	
Gravel	27 50	
		474 00
Plymouth St., from Berkshire St. to Webster Avenue:—		
Labor	$22 00	
Teaming	27 00	
Gravel	6 75	
		55 75
Franklin St., from Soden St. to Hancock St.:—		
Labor	$3 00	
Teaming	45 00	
Gravel	7 50	
		55 50
Washington Sreet, from Brewery Street to Portland Street:—		
Labor	$23 00	
Teaming	48 00	
Rolling	7 00	
Cracked Stone	350 00	
Gravel	2 00	
		430 00
Hayes St., from Howard St. to Putnam Ave.:—		
Labor	$18 00	
Teaming	81 00	
Gravel	21 50	
		120 50
Munroe Street:—		
Labor	$6 00	
Gravel	19 00	
		25 00
Amount carried forward		$5,993 39

Amount brought forward		$5,993 39
Massachusetts Avenue, from Lafayette Square to Harvard Bridge:—		
Labor	$814 00	
Teaming	1,005 75	
Rolling	283 50	
Cracked Stone	2,535 00	
Gravel	6 75	
		4,645 00
Binney Street, from Ninth Street to B. & A. R. R. Crossing:—		
Labor	$6 00	
Teaming	4 50	
Rolling	7 00	
Gravel	14 50	
		32 00
Chestnut Street, from Magazine Streeet to Brookline Street:—		
Labor	$41 00	
Teaming	195 75	
Rolling	12 25	
Cracked Stone	12 50	
Gravel	32 00	
		293 50
Vassar Street (entire):—		
Labor.	$56 00	
Teaming	130 50	
Rolling	35 00	
Cracked Stone	300 00	
		521 50
Albany Street:—		
Labor	$20 50	
Teaming	49 50	
Rolling	15 75	
Cracked Stone	92 50	
		178 25
Otis Street, near First Street:—		
Labor	$6 00	
Teaming	20 25	
Cracked Stone	35 00	
		61 25
Amount carried forward		$11,724 89

Amount brought forward		$11,724 89	
State Street, from Windsor Street to Osborn Street:—			
Labor	$14 00		
Teaming	56 25		
Rolling	14 00		
Cracked Stone	72 50		
Gravel	1 75		
		158 50	
Total District No. 1.			$11,883 39

District No. 2 (Wards 1 and 5).

Harvey Street, (Entire):—			
Labor	$306 00		
Teaming	225 00		
		531 00	
(Gravel furnished by B. & M. R. R.)			
Willard Street, from Mt. Auburn Street to Foster Street:—			
Labor	$4 00		
Teaming	46 13		
Gravel	11 00		
		61 13	
Bowdoin Street (entire):—			
Labor	$22 00		
Teaming	86 63		
Rolling	28 00		
Cracked Stone	220 00		
		356 63	
Waterhouse Street:—			
Labor	$3 00		
Teaming	10 00		
Rolling	7 00		
Cracked Stone	40 00		
		60 00	
Highland Street, from Sparks Street to Reservoir Street:—			
Labor	$43 00		
Teaming	153 00		
Rolling	28 00		
Cracked Stone	400 00		
		624 00	
Amounts carried forward		$1,632 76	$11,883 39

Amounts brought forward		$1,632 76	$11,883 39
Richdale Avenue, entire:—			
Labor	$612 00		
Teaming	679 50		
Rolling	77 00		
Cracked Stone	1,125 00		
Gravel	55 75		
		2,549 25	
Huron Avenue, from Pipeway Bridge to F. R. R. Bridge:—			
Labor	$1 00		
Teaming	13 50		
Rolling	21 00		
Gravel	5 00		
		40 50	
Craigie Street, entire:—			
Labor	$61 00		
Teaming	237 37		
Rolling	35 00		
Cracked Stone	402 50		
		735 87	
Putnam Avenue, from Massachusetts Avenue to Pleasant Street:—			
Labor	$244 00		
Teaming	254 25		
Rolling	106 75		
Cracked Stone	587 50		
		1,192 50	
Walker Street, entire:—			
Labor	$103 00		
Teaming	420 75		
Rolling	52 50		
Cracked Stone	700 00		
Gravel	24 00		
		1,300 25	
Sherman Street:—			
Labor	$128 00		
Teaming	342 00		
Rolling	63 00		
Cracked Stone	992 50		
		1,525 50	
Amounts carried forward		$8,976 63	$11,883 39

Amounts brought forward		$8,976 63	$11,883 39
Bellevue Avenue:—			
Labor	$109 00		
Teaming	143 25		
Rolling	45 50		
Cracked Stone	255 00		
		552 75	
Flagg Street:—			
Labor	$28 50		
Teaming	108 00		
Rolling	14 00		
Cracked stone	247 50		
		398 00	
South Street from Holyoke Street to Boylston Street:—			
Labor	$9 00		
Teaming	75 37		
Rolling	17 50		
Cracked Stone	142 50		
		244 37	
Humboldt Street:—			
Labor	$8 00		
Teaming	33 75		
Rolling	24 50		
Cracked stone	95 00		
		161 25	
Holly Avenue:—			
Labor	$37 00		
Teaming	155 25		
Rolling	14 00		
Gravel	59 25		
		265 50	
Total District No. 2			10,598 50
Total Macadamizing			$22,481 89

In addition to the above amount expended for macadamizing streets, $6,256.91 in the first district, and $11,463.35 in the second district, making a total of $17,720.26 has been expended in "patching" and minute repairs on nearly all of the streets in the city.

The large amount expended in the second district is accounted for by the fact that $5,664.31 was expended for this purpose on Massachusetts Avenue alone.

It will thus be seen that the cost of macadamizing and patching together, that is to say, what we have been able to expend for labor and materials actually used directly on the streets, amounts to about $40,000 00, and when one considers that this amount must be spread over more than eighty-five miles of streets, some idea may be obtained of its inadequacy. Our streets on the whole are subjected to a large amount of heavy travel, a great deal of teaming passing through the city from the neighboring towns, and such of these thoroughfares as have not been paved are constantly in need of repairs.

A notable illustration of this fact is the present deplorable condition of Massachusetts Avenue from Harvard Square to the Arlington line, where, as previously stated, we have expended during the past year nearly six thousand dollars in patching, with lamentably unsatisfactory results.

This wide thoroughfare, probably the finest in the city, must beyond doubt be made the subject of special treatment; particular attention was called to it in last year's report and the following propositions were laid before the finance committee when the budget was under consideration: —

1. For asphalt pavement on six-inch concrete base, guaranteed for five years: —

61,800 square yards at $3 00	$185,400 00
4,300 feet straight curb at 55c.	2,365 00
100 feet circle curb at 75c.	75 00
	$187,840 00

2. For paving with large granite blocks on concrete base, joints filled with tar: —

61,800 square yards at $2 80	$173,040 00
Edgestones as above	2,440 00
	$175,480 00

3. For paving with small blocks on present foundation, joints filled with gravel:—

61,800 square yards at $2 50	$154,000 00
Edgestones as above	2,440 00
	$156,440 00

4. For paving with vitrified brick on concrete base:—

61,800 square yards at $2 50	$154,000 00
Edgestones as above	2,440 00
	$156,440 00

5. For macadamizing to a depth of one foot:—

61,800 square yards at $1 00	$61,800 00
Edgestones as above	2,440 00
	$64,240 00

It will be seen by the above that the least expensive method suggested, and which might not on the whole be the cheapest, amounts to very nearly as much as the entire amount annually appropriated for "Maintenance." It is therefore evident that if any permanent improvement is to be made, it must be done outside the usual appropriation made for "Maintenance." The Metropolitan Water Board intends to continue its 48 inch main through this Avenue, from the point at which it left off in Harvard Square to Beech Street; this will not however retard any work which may be decided to be done, as we could begin at the Arlington line and the pipe could be all laid before we reached Beech Street.

I have dwelt on the matter to this extent for the reason that it seems to me to be one of the most important things to be considered during the coming year. It will be seen by reference to the list of streets macadamized in District No. 1, that a portion of that part of Massachusetts Avenue, from Lafayette Square to Harvard Bridge, to which attention was called in last year's report, has been resurfaced at a cost of $4,645.00. This comprises practically but one side of the Avenue, nothing having been done on the southwesterly side, except for a very short distance from Lafayette Square. This, and a number of the other principal streets need immediate attention, and I trust that the appropriation for "Maintenance" may be materially increased, so that we may be able to do a considerable amount of thorough macadamizing in order to reduce as much as possible the large amount annually expended for patching.

Another matter to which I wish to call special attention, is the policy of accepting new streets without making any provision for their construction. It has been customary to accept streets when releases have been signed by the abutters, plan filed and the street "brought to grade." This latter phrase usually means that the street has been filled to a certain point with material totally unfit for the purpose, and that it must practically be rebuilt in order to make it safe for public travel.

Following is a list of streets, some having been accepted for a considerable length of time upon which nothing has yet been done :

Name.	Feet Wide.	Feet Long.	Square yards Macadam.	Square yards Sidewalk.
Allen Street	30	304	676	170
Chestnut, from Brookline to Sidney	40	409	940	
Cameron Avenue	60	569	2,425	1,150
Green, from Blanche to Lansdowne	40	376	1,114	560
Hayes Street	30	700	1,556	775
High Street	40	509	1,510	750
Holmes Street	40	378	1,125	560
Park Avenue	50	940	3,480	1,775
Magazine Street, from Florence to the Parkway	50	687	2,410	900
Lansdowne Street	50	257	952	460
Middlesex Street	40	300	889	425
Montgomery Street	40	1,365	4,045	890
Ninth Street, from Spring to Vine	50	250	926	416
Peters Street	40	300	889	440
Walnut Court	30	307	685	325
Orrin Street	30	300	667	335
Winslow Street	30	350	778	385
Oliver Street	30	215	478	240
Chatham Street	40	765	2,265	1,150
Binney Street, from Portland to Ninth	50	831	3,078	1,480
Munroe Street	50	885	3,278	1,600
Berkshire Street, from Cambridge to York	40	1,092	3,315	775
Willow Street, from Cambridge to York	40	960	2,914	678
York Street, from Berkshire to Willow	40	515	1,555	375
			41,950	16,614

The total number of yards of macadamizing and surfacing on the above streets, is 58,564, with the amount of excavating and filling required, it would hardly be possible to do the work for less than one dollar per yard, or somewhere about $50,000.00 for the whole. Of course, to do all the work this coming year, is out of the question, and yet, nearly all these streets should have immediate attention. Considerable building has been done on most of them, all the house lots on several of them being occupied by a desirable class of dwellings. The last three streets named, adjoin the park in Ward 2 known as Cambridge Field, and under the order taking the land, must be built at once.

In view of the above facts, it seems to me that either a street proposed for acceptance should be required to be fairly well constructed, or that provision should be made when it was accepted for putting it into satisfactory condition.

In May, 1894, a stone crushing plant was established at the City Ledge on Tannery Street, for the purpose of using a vein of trap rock which existed there, for macadamizing streets. The vein has now been entirely worked out and the crusher is being moved to the old City Stable on Hampshire Street, to take the place of the one which has been in use there for many years and is now worn out; the remainder of the plant at the ledge, including bins, elevator, engine, boiler, etc., will be moved to the new Raymond Street yard where a new crusher of about 200 tons daily capacity will be set up at once.

As we expect during the coming year to rely largely upon field stone for our street material, we hope to be able to keep both crushers running to their full capacity during the working season, and to deliver stone direct from the bins into the carts, instead of piling it up as has usually been done, thus saving the cost of handling the material the second time.

For a number of years the desirability of the city owning a gravel bank has been apparent. Tentative propositions have been made a number of times, but without result. This year, however, the laying out of new streets in the land owned by the Bay State Brick Company gives us an opportunity of which it seems wise to take advantage.

By an order approved July 2d, a loan of $50,000.00 was authorized for the purpose of laying out thirteen new streets, six, forty feet wide and seven, fifty feet wide, through land owned by the above-named company on the northerly side of Concord Avenue, between Walden Street and New Street.

A large amount of filling is necessary to bring these streets up to grade, and a thorough examination demonstrates that the filling can be done more cheaply, by purchasing a bank on the line of the Fitchburg Railroad and running a spur track directly on to the land to be filled. Such a bank has been found, containing about thirty-two acres and located in South Acton ; the bank has been visited by the Mayor and Committee on Roads and Bridges and borings have been made there by the City Engineer.

After taking out the amount of filling necessary for the proposed new streets, there will still remain a supply of good gravel for street purposes, sufficient for the needs of the department for a number of years, which, with railroad tracks running directly from the bank into our new yard we shall be able to handle advantageously and economically.

If satisfactory arrangements can be made with the railroad company, with regard to cars, rates of freight, etc., and favorable terms obtained so that this gravel bank may be purchased, it will, to use a somewhat trite saying, fill a long-felt want in this department.

On the next page will be found a list of streets laid out and grades established from December 1st, 1895, to December 1st, 1896.

Streets Laid Out and Grades Established from December 1, 1895, to December 1, 1896.

STREET.					PLAN.		
Name.	From	To	Length in Feet.	Width in Feet.	Accepted.	Made by	Date.
Allen Street	Massachusetts Ave.	Orchard Street	307	30	Sept. 10, 1896	W. A. Mason	June 10, 1896
Alpine Street	Concord Avenue	Field Street	337	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Bay State Road	New Street	Field Street	740	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Berkshire Street	Cambridge Street	York Street	1,090	40	Nov. 18, 1896	City Engineer	July 14, 1896
Birch Street	Concord Avenue	Bay State Road	426	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Cameron Avenue	Massachusetts Ave.	Somerville Line	568	60	June 25, 1896	W. A. Mason	May 12, 1895
Chilton Street	Concord Avenue	Field Street	376	50	Oct 14, 1896	W. A. Mason	June 8, 1896
Copley Street	Fayerweather St.	Concord Ave.	523	40	Oct. 14, 1896	W. A. Mason	June 8, 1896
Dale Street	Concord Avenue	Field Street	399	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Eighth Street	Spring Street	Thorndike Street	210	40	Oct. 22, 1896	City Engineer	June , 1896
Fayerweather Street	Concord Avenue	Walden Street	960	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Fern Street	Concord Avenue	Field Street	465	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Field Street	Bay State Road	Fayerweather St.	1,211	40	Oct. 14, 1896	W. A. Mason	June 8, 1896
Garden Street	Field Street	Walden Street	960	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Green Street	Lansdowne Street	Blanche Street	377	40	Dec. 4, 1895	W. H. Whitney	Aug. 23, 1895
Hazel Street	Fayerweather St.	Garden Street	258	40	Oct. 14, 1896	W. A. Mason	June 8, 1896
High Street	Holworthy Street	Park Avenue	509	40	Jan. 1, 1896	Ira H. Knight	Dec. 9, 1895
Holmes Street	Holworthy Street	Park Avenue	378	40	Jan. 1, 1896	Ira H. Knight	Dec. 9, 1895
Ivy Street	Fayerweather St.	Garden Street	252	40	Oct. 14, 1896	W A. Mason	June 8, 1896
Landsdowne Street	Massachusetts Ave.	Green Street	257	50	Dec. 4, 1895	W. H. Whitney	Aug. 23, 1895
Middlesex Street	Rindge Avenue	Wilson Avenue	309	40	Dec. 24, 1895	W. A. Mason	July 31, 1895
Montgomery Street	Rindge Ave, n. 210 ft	Harvey Street	1,149	40	June 25, 1896	W. A. Mason	Nov. 27, 1895
Ninth Street	Spring Street	Vine Street	252	50	June 25, 1896	W. A. Mason	April 18, 1896
Park Avenue	Huron Avenue	Holworthy Street	956	50	Jan. 1, 1896	Ira H. Knight	Dec. 9, 1895
Peters Street	Putnam Avenue	Allston Street	301	40	June 25, 1896	W. A. Mason	July 31, 1895
Vassar Street	Massachusetts Ave.	southeasterly	500	50	Dec. 4, 1895	Aspinwall & Lincoln	Oct. 1, 1895
Walnut Court	Putnam Avenue	Somerset Street	307	30	June 25, 1896	W. A. Mason	Sept. 2, 1895

Total length of streets accepted during the year, 14,377 feet, or 2.723 miles.
Total length of streets accepted December 1, 1896, 88.317 miles.

Paving (Edgestones and Sidewalks).

Appropriation		$40,000 00
EXPENDED.		
Labor	$14,710 33	
Teaming	2,648 25	
Bricks	9,062 08	
Gravel	444 63	
Edgestone	10,148 91	
Granite flagging	1,263 37	
Round stone	314 15	
Re-cutting block stone	442 55	
Allowance on artificial stone sidewalks, laid by abutters	507 81	
Tools, supplies, etc.	457 04	
		39,999 12
Balance		$ 88

This appropriation has been expended for resetting old edgestones, relaying old brick sidewalks, setting new edgestones, laying new brick sidewalks, and new flagging crossings.

During the past year we have laid more than the usual amount of flagging, but there still remains a great deal of new crossing work to be done, a number of uncompleted orders still remaining on our hands. The demand for flagstone crossings annually increases, and there are hundreds of the old-style block crossings which should be removed and flagging put in their places; wherever we resurface or macadamize a street this is done, and a good deal has been accomplished during the past year in this direction. In addition to this there are a great many places where at present there are no crossings, and where they are imperatively needed.

Following is a list of the streets, by districts, where crossing work has been done. This list does not include streets macadamized under special appropriations, but only work done and paid for out of the above appropriation.

Crossings, District No. 1.

	Cost.
Broadway at Maple Avenue (relaid)	$16 07
Second Street at Otis Street (relaid)	14 57
Temple Street at Mass. Avenue	51 42
Vernon Street at Mass. Avenue (repairs)	12 64
Dana Street at Broadway (relaid)	13 09
River Street at Cottage Street	52 18
River Street at William Street	50 77
Hampshire Street at junction of Windsor and Plymouth (five)	354 74
Lincoln Street at Webster Avenue	70 75
Portland Street at Cambridge Street	46 75
Cambridge Street between Third and Seventh Streets (sundry repairs)	334 06
Cambridge Street between Inman Square and Dana Street (sundry repairs)	76 89
Allston Street at Magazine Street	83 95
Allston Street at Brookline Street	38 56
State Street at Windsor Street	112 34
Pearl Street at Green Street	56 40
Inman Street at Harvard School	39 94
Bay Street at Franklin Street	84 35
Bridge Street at Nos. 159-171 (repairs)	30 72
Winter Street at Fourth Street (two)	132 44
Mass. Avenue at No. 571 (repairs)	13 94
Franklin Street at Bay Street	46 78
Union Street at Hampshire Street	39 05
Green Street at Hancock Street	45 46
Green Street at Sidney Street	78 21
Main Street at Osborn Street (repairs)	22 10
Pearl Street at Auburn Street (repairs)	16 58
Harvard Street at Hancock Street (repairs)	11 62
	$1,946 37

Crossings, District No. 2.

Avon Hill Street at Huron Avenue (repairs)	$9 62
Hayes Street at Putnam Avenue	47 17
Magee Street at Putnam Avenue	39 14
Kinnaird Street at Putnam Avenue	54 07
Franklin Street at Putnam Avenue	51 43
Amount carried forward	$201 43

Amount brought forward	$201 43
Sands Street at Putnam Avenue	49 03
Surrey Street at Putnam Avenue	46 70
Grigg Street at Putnam Avenue	50 21
Flagg Street at Putnam Avenue	45 88
Chauncy Street at Garden Street	59 52
Mount Auburn Street at Hilliard Street	60 48
Orchard Street at Davenport Street	65 07
Mason Street at Garden Street (repairs)	5 31
Mass. Avenue at Linnæan Street (repairs)	7 88
Linnæan Street at Garden Street	79 40
Harvard Street between Dana Street and Quincy Square (repairs)	31 62
Mass. Avenue between Chauncy Street and Mt. Vernon Street (repairs)	31 41
Broadway at junction of Cambridge Street	96 23
Broadway at Ware Street	42 39
Mass. Avenue between Porter's Station and Dudley Street (repairs)	17 87
Aberdeen Avenue at Mt. Auburn Street	277 29
Broadway between Cambridge Street and Dana Street (repairs)	57 79
South Street at Dunster Street (repairs)	3 81
Forest Street at Oxford Street (repairs)	2 81
Cambridge Street between Dana Street and Trowbridge Street (repairs)	15 75
Sparks Street at Highland Street (repairs)	20 81
Rice Street at Mass. Avenue	27 13
Peabody Street near Kirkland Street (repairs)	6 63
Irving Street at Scott Street	51 72
Scott Street at Irving Street	73 07
	$1,427 24

The following tables show by districts the new sidewalk work done during the year, viz.: — the number of feet of new circles and edgestones set, and square yards of new brick sidewalk laid, with the expense on each street.

District No. 1.

STREETS.	Linear Feet Straight Edgestone.	Linear Feet Circle Edgestone.	Square Yards Brick Sidewalk.	Amount.
Cambridge Street, between Highland and Ellsworth Avenues	41.4			$57 00
Corner Gore and Third Streets at engine house			137	128 96
Southwest corner Portland and Bristol Streets			124.3	101 75
Brewery Street, between Broadway and Harvard Street		9.2	102.1	100 84
No. 27 Elm Street	40.		25.7	72 69
Washington Street, from Pine Street to Columbia Street		18.3	114.5	150 72
Dana Street, from Broadway to Cleveland Street	150.4	11.3	123.4	272 71
Highland Avenue, from Broadway to Cambridge Street	489.		410.4	801 03
Hampshire Street, from Inman Street to Amory Street			225.3	170 03
Gardner Street, from Prospect Street to Tremont Street	306.7		22 3	298 72
Charles Street, from Fifth Street to Sixth Street	380.	9.4	375.3	660 25
Leonard Avenue, entire, both sides	1,312.3		881.3	1,752 39
Cambridge Street, from Portland Street to Berkshire Street	156.		636.2	687 63
Amounts carried forward	2,875.8	48.2	3,177.8	$5,254 72

District No. 1.—Continued.

STREETS.	Linear Feet Straight Edgestone.	Linear Feet Circle Edgestone.	Square Yards Brick Sidewalk.	Amount.
Amounts brought forward	2,875.8	48.2	3,177.8	$5,254 72
Chestnut Street, from Pearl Street to Magazine Street	404.6	19.		408 29
Kinnaird Street, from Western Avenue to River Street	564.2			537 46
Plymouth Street, from Webster Avenue to Portland Street	1,302.	73.7		1,160 87
Seventh Street, corner of Spring Street	16.	19.4		53 56
Chestnut Street, from Brookline Street to Sidney Street	656.8	19.		666 33
Watson Street, No. 16	45.8			45 36
Windsor Street, near Cambridge Street		24.5		62 23
Franklin Street, from Pleasant Street to Hancock Street	1,059.			1,127 36
Magee Street, from Putnam Avenue to Grigg Street	421.5			439 67
Webster Avenue, from Plymouth Street to Seckel Street	72.6	9.8		69 23
Brookline Street, southeast corner of Allston Street			124.2	109 50
Allston Street, southeast corner of Brookline Street			83.	77 50
Amounts carried forward	7,418.3	213.6	3,385.	$10,012 08

District No. 1. — Concluded.

STREETS.	Linear Feet Straight Edgestone.	Linear Feet Circle Edgestone.	Square Yards Brick Sidewalk.	Amount.
Amounts brought forward	7,418.3	213.6	3,385.	$10.012 08
Hampshire Street, from Inman Square to Somerville Line	202.5		273.3	445 64
Inman Street, from Broadway to Harvard Street	17.7		245.8	246 66
Cottage Street, at Nos. 13 and 15			57.	48 75
Gore Street, at No. 13			107.5	85 62
Central Square, north side		30.6	229.	277 57
Florence Street, at No. 19			45.	32 89
Columbia Street, between Hampshire Street and Lincoln Street	38.7		35.	72 11
Massachusetts Avenue, at corner of Vassar Street		12.5		28 89
Vine Street, at east side of Third Street		23.5		57 67
Windsor Street, between School Street and Washington Street			102.3	40 73
Portland Street, at No. 57	13.2		11.2	22 11
Totals, District No. 1	7,690.4	280.2	4,491.1	$11,370 72

District No. 2.

STREETS.	Linear Feet Straight Edgestone.	Linear Feet Circle Edgestone.	Square Yards Brick Sidewalk.	Amount.
Mount Auburn Street, from Putnam Avenue to Bow Street .			997.	$1,031 91
Wendell Street, from Massachusetts Avenue to Oxford Street . .			785.8	612 09
Kidder Street, between Massachusetts Avenue and Orchard Street .		18.2		21 39
Flagg Street, between Putnam Avenue and Banks Street . . .	522.6	15.5		594 99
Linnæan Street, corner of Walker Street	19.8	25.		36 10
Berkeley Street, from Phillips Place to Craigie Street	185.2	9.7		172 52
Crescent Street, from Sacramento Street to Oxford Street . . .	1,037.3	217.8		1,225 30
Cedar Street, between Rindge Avenue and Harvey Street . . .	43.9			47 39
Harvey Street, between Reed Street and Cedar Street	50.7	11.2		59 22
Reed Street, between Rindge Avenue and Harvey Street . . .	20.3			23 58
Harvey Street, north side, at French Church	148.7			125 00
Huron Avenue, corner Lexington Avenue	20.6			62 64
Rindge Avenue, at No. 63	47.4			66 50
Amounts carried forward	2,096.5	297.4	1,782.8	$4,078 63

District No. 2. — Continued.

STREETS.	Linear Feet Straight Edgestone.	Linear Feet Circle Edgestone.	Square Yards Brick Sidewalk.	Amount.
Amounts brought forward	2,096.5	297.4	1,782.8	$4,078 63
Cogswell Avenue, from Massachusetts Avenue to Fitchburg R. R.	1,066.8	17.9		1,025 64
Richdale Avenue, between Huron Avenue and Walden Street	41.			42 14
Bellevue Avenue, between Raymond Street and Avon Hill Street	705.6	18.9		752 87
Banks Street, between Grant Street and Mount Auburn Street	724.3			744 00
Mount Auburn Street, between Holyoke Street and Claverly Hall	127.7		163.3	268 64
Putnam Avenue, from Mass. Avenue to Western Avenue (both sides)	2,809.3	154.5	2,326.4	5,035 78
Harvard Street, between Ellery Street and Trowbridge Street			71.6	53 81
Harvard Street, between Ellery Street and Dana Street			135.8	112 98
Ellery Street, at Nos. 18-20-26			111.2	91 45
Ellery Street, at Nos. 15-23			88.8	69 21
Kirkland Street, from Myrtle Avenue to Hampshire Street	33.9		54.2	64 67
Myrtle Avenue, from Kirkland Street, easterly	194.5	15.7		252 39
Amounts carried forward	7,799.6	504.4	4,734.1	$12,592 21

District No. 2. — Continued.

STREETS.	Linear Feet Straight Edgestone.	Linear Feet Circle Edgestone.	Square Yards Brick Sidewalk.	Amount.
Amounts brought forward	7,779.6	504.4	4,734.1	$12,592 21
Avon Hill Street, between Huron Avenue and Hillside Avenue . .	102.6		71.	177 23
Huron Avenue, between Avon Hill Street and Mt. Pleasant Street .	221.5	11.7	195.	474 25
Huron Avenue, between Walnut Avenue and Washington Avenue .			288.6	237 10
Huron Avenue, between Mt. Pleasant Street and Raymond Street .	561.	75.	492.7	1,256 42
Walden Street, at No. 121	50.		51.5	107 91
Harris Street, beetween Oxford Street and Frost Street . . .			423.3	411 11
Shepard Street, between Avon Street and Walker Street . . .	182.		177.	365 62
Washington Avenue, between Linnæan Street and Lancaster Street .			330.2	123 88
Martin Street, between Hurlburt Street and Bowdoin Street . .			60.6	47 82
Huron Avenue, between Walnut Avenue and Mount Vernon Streeet .			137.3	137 05
Garden Street, between Chauncy Street and Shepard Street . .	465.		427.3	812 68
Athens Place, from Mount Auburn Street to end	524.1	3.	403.6	854 66
Amounts carried forward	9,905.8	541.1	7,792.2	$17 597 94

District No. 2. — Concluded.

STREETS.	Linear Feet Straight Edgestone.	Linear Feet Circle Edgestone.	Square Yards Brick Sidewalk.	Amount.
Amounts brought forward	9,905.8	594.1	7,792.2	$17,597 94
Oxford Street, between Kirkland Street and Hammond Street			1,361.	1,125 23
Cedar Street, at No. 53			42.2	33 12
Oxford Street, between Kirkland Street and F. C. Foster's estate			420.5	242 05
Ash Street, between Mount Auburn Street and Brattle Street			343.5	280 41
Russell Street, between Massachusetts Avenue and Somerville Line	190.		201.4	367 08
Prescott Street, between Harvard Street and Broadway	5.5		124.5	164 76
Dana Street, between Cambridge Street and Broadway			404.	351 52
Broadway, between Prescott Street and Ware Street			346.1	342 95
Frost Street, between Forest Street and Harris Street	523.6		340.2	760 98
Huron Avenue at Concord Avenue			139.3	97 93
Totals, District No. 2	10,624.9	594.1	11,514.9	$21,363 97
Totals, District No. 1.	7,690.4	280.	4,491.1	$11,370 72
Totals, New Sidewalk work	18,315.3	874.1	16,006.0	$32,734 69

In addition to the new work shown in the foregoing tables, 6063 running feet of edgestone have been reset, 3770 square yards of brick sidewalk have been relaid and 10,276 square yards of gutter laid. Twenty-one driveways have been constructed at an expense of $668 49, the entire cost being repaid to the city by the parties benefitted.

An increase of $10,000 00 in the amount usually appropriated for paving sidewalks, was made this year in the hope that we might be able to finish up the large amount of work left over from the previous year. But the increase in the demand for new edgestones, brick sidewalks, etc., has been such that a still larger amount of unfinished work remains this year. We have in the files of the department eighty-one uncompleted orders passed by this year's city government, amounting to about $30,000 00.

Beside the fact that the abutters are obliged by law to pay the cost of materials used in setting new edgestones and laying new brick sidewalks, the cost of keeping the streets and sidewalks in good repair is very much less after this is done; for these reasons we should, if possible, grant every petition for this work, but to complete the petitions and orders now on hand, and to provide for the natural increase in the demand for edgestones, brick sidewalks and crossings, the appropriation for the coming year should be at least $60,000 00.

On several of the residential streets in ward one, and on that portion of First Street adjacent to Ginn and Company's printing establishment, a desire was expressed for something better than brick as a material for sidewalks. In all such cases, permission was granted to the abutters to contract with responsible parties for laying, at their own expense, artificial stone sidewalks, under the direction and to the satisfaction of the Superintendent of Streets; an allowance of six cents per square foot, based on the cost to the city for laying brick sidewalk, was paid by this department to the contractors, that amount being deducted from their bills to the abutters.

Sidewalks have been laid as above on the following streets : —

First Street	6,206	square feet
Quincy Street	3,021	" "
Sparks Street	2,780	" "
Highland Street	2,206	" "
Corner Appleton and Brewster Streets	965	" "
Total	15,178	" "

Where abutters are willing to pay the extra cost of these sidewalks a continuance of the present policy would seem wise, as the city has at present no facilities for doing the work.

There are throughout the city a large number of public squares, buildings etc., in front of which there are at present no sidewalks. According to measurements made by the City Engineer at the request of this department, there would be required for all these places, 11,420 feet of straight edgestone, 478 feet of circle edgestone and 13,530 square yards of brick sidewalk, at an estimated expense of $24,000 00.

I would respectfully recommend that some steps be taken toward doing at least a part of this work during the coming year : in certain localities, such for instance as the new High School, the Public Library and the Manual Training School, the necessity for good sidewalks is almost imperative and, as the entire expense must be borne by the city, a special appropriation should be made for the purpose.

Webster Avenue (Resurfacing).

Appropriation		$6,000 00
EXPENDED.		
Labor	$2,321 73	
Teaming and Rolling	1,191 37	
Cracked Stone	2,486 40	
		5,999 50
Balance		$ 50

The removal of the street railway tracks in Webster Avenue, made necessary its resurfacing practically the entire length, and by agreement with the Mayor, the West End Street Railway is to reimburse the city for the above amount.

The street has been thoroughly macadamized to a depth of 10 inches, and catch basins repaired and brought to grade; the street is now in good condition, and, with the moderate amount of travel there, should last a number of years.

There now remains, I believe, but one thoroughfare of importance where there are still unused street railways tracks, viz: Brookline Street, from Henry Street to the bridge.

This portion of Brookline Street, exclusive of the ordinary traffic, is used to a great extent for pleasure riding, connecting as it does, this city with the boulevards of Brookline and Newton, and the park system of Boston. If these tracks are not to be used, they should be removed as soon as possible, and the street, at least between the points above-named, well macadamized.

Under the changes in track locations in the streets around Harvard Square, the street railway company will discontinue the use of Dunster Street, from Massachusetts Avenue to Mount Auburn Street.

This short piece of track should be removed and the street put into good condition as early as possible, as the new buildings recently erected there will undoubtedly bring the street into more general use.

Watering Streets.

Appropriation,		$28,500 00
EXPENDED.		
Salary of Foreman	$987 00	
Sprinkling Contracts	21,489 81	
Temporary clerical assistance, stationery and printing	128 10	
New Carts	1,110 00	
Labor, repairing and painting carts	1,374 87	
New tanks and attachments	1,728 25	
Lumber, etc.	297 30	
Hardware, tools, and supplies	457 03	
Paints, oils, etc	669 34	
Horses	240 00	
		$28,481 70
Balance		$18 30

The amount above shown was expended for the purchase of new, and repairs of old watering carts, the payment of contractors and incidental expenses of sprinkling the streets.

In 1895, a change for a long time advocated by the department, was made in the system of watering streets. The old method of compelling citizens to solicit subscriptions from door to door was abolished, and the amount thus formerly raised is now obtained by an assessment of one cent per front foot on each side of the streets watered. Where, under the old plan, we were obliged to wait until the amount required was raised before we begun watering a street, under the present arrangement, we are enabled to lay the work out systematically, and begin watering all the streets at the same time. The city is divided as nearly as possible into equal sections, to each of which is assigned a cart with instructions that the streets in that section must be kept properly watered at all times. Under this section system, contracts were made for forty-four carts at an average price of $75.00 per month. The service has, on the whole, been generally satisfactory and complaints have been comparatively few.

During the year we have purchased three new carts; eight of the old carts have been fitted with new tanks, and on nine of them we have substituted in place of the old-fashioned strainers, the latest and most approved sprinkling attachments. The department now has, if not the best, one of the finest municipal street watering plants in New England.

In General.

The value of records has not been lost sight of, and the usual attention has been given to the office work of the department. From the police department and other sources about 1,300 complaints and reports of defects, etc., have been received, transmitted to the district foremen, and by them promptly attended to. One thousand two hundred and eighty-eight permits to open or obstruct streets have been granted, and under a general permit 1,025 openings in streets were made by the Water Department.

Under the direction of the City Solicitor, a thorough revision has been made of the ordinances in relation to the opening and obstruction of streets by builders and others, and with his assistance and advice a comprehensive permit system has been established, calculated to fully protect the city in granting permits for the use of streets and compelling parties to whom they are issued to restore the streets to proper condition.

Following is a schedule of property in charge of this department:—

Real Estate.

Land for new City Yard and Stable, Raymond Street,		$11,000 00
City Stable, Hampshire Street:—		
72,661 square feet of land, Assessors' valuation,	$30,000 00	
Stables, sheds and scales, including old police station	17,000 00	$47,000 00
Yard and Pound, east side of Norfolk Street		
39,600 square feet of land, Assessors' valuation	$12,000 00	
Mill Pond property, 70,684 square feet of land, Assessors' valuation	29,000 00	$41,000 00
Total real estate,		$99,000 00

Personal Property.

54 Horses.	$13,100 00	
48 Watering Carts	17,500 00	
43 Carts, (29 single, 14 double,)	6,300 00	
55 set of harnesses	1,580 00	
24 sleds, 7 snow plows, 1 sleigh	2,500 00	
6 buggies, 3 wagons, and 2 bicycles	850 00	
2 hayracks, 1 caravan, 2 pungs	425 00	
2 engines and stone-crushing plants	13,000 00	
3 Steam Road Rollers	10,875 00	
4 Horse Rollers	1,000 00	
4 Road Machines	1,000 00	
2 Road Scrapers	750 00	
5 Street Sweepers	1,490 00	
Tools and Stable Furniture	3,500 00	
Amounts carried forward	$73,870 00	$99,000 00

Amounts brought forward	$73,870 00	$99,000 00
Lumber, iron, paints, oils etc.	1,500 00	
212.5 feet straight edgestone	89 25	
581.8 feet circle edgestone	360 70	
311 Linear feet flagging stone	183 50	
150 tons gutter stone	225 00	
55,617 granite paving blocks	2,217 75	
350,000 paving bricks	4,375 00	
1020 tons cracked stone and dust	1,326 00	
		84,147 20
Total		$183,147 20

In concluding this report I desire to express to his Honor, the Mayor, my gratitude for his consideration and encouragement at all times during my term of office. His suggestions and advice have been to this department, perhaps, more valuable than to any other in the city, because of his practical training and unusual interest in the work of the department, and his commendation has always been spontaneous and hearty.

To the members of the Joint and Standing Committees on Roads and Bridges, all of whom have served during the past two years, I am indebted for their support and approval, and the interest they have taken in the department; in the consideration of the many important matters brought before them, our suggestions have been favorably entertained, and every assistance has been freely given towards expediting the work of the department. My acknowledgments are due to the heads of the various departments for their unfailing courtesy and consideration concerning matters affecting this department.

I recognize the valuable assistance of the subordinate officials in the department, and gladly express my appreciation of the prompt, intelligent and efficient manner in which their work has been done.

Respectfully submitted,

C. A. BROWN,

Superintendent of Streets.

REPORT OF THE BOARD OF CEMETERY COMMISSIONERS.

CAMBRIDGE, December 1st, 1896.

To the Honorable the City Council: —

The Board of Commissioners of the Cambridge Cemetery respectfully submits its forty-third annual report, the same being for the year ending November 30, 1896.

The amount appropriated at the beginning of the year was	$20,000 00
The total amount of expenditures was	20,000 00

For a detailed account of expenses, reference is made to the City Auditor's Report.

The receipts of the year have been as follows: —

Burial and tomb fees	$4,743 00
Care of lots	3,506 11
Sale of lots and graves	6,435 59
Foundations, brick graves, etc.	1,278 54
Interest on Cemetery Fund	1,277 85
Sundries (including amount from sale of "Winchester House")	809 27
Total	$18,050 36
The estimated revenue was	18,000 00
Excess of revenue over estimate	$50 36

The receipts have been smaller than was anticipated, and although the estimated revenue was slightly exceeded, yet the result has been obtained only by energetic work on the part of the Board, with the careful assistance of the Superintendent.

Not unexpectedly, the financial depression, which has been so widespread during the past three years has affected the receipts of the Cemetery and has induced the sale of small lots and single graves, so that, while the business of the department has been numerically equal to the average, the aggregate amount received is smaller than ought to be expected.

In the receipts for care, also, has the stringency of the times had a depreciating effect, and the number of orders received for care is far short of a proper proportion when the increasing number of lots is considered.

Perhaps, a comparison between the amounts received in 1892 and 1896, may show more clearly the force of these assertions. In 1892, there was received from sales of lots and graves, the sum of $8,120.58; in 1896, $6,235.59. In 1892, the receipts for care of lots was $3,989.12; in 1896, $3,506.11. Thus it will be seen that the past season as compared with 1892 has witnessed a loss in the receipts from the two sources named, of almost $1,900.00 in sales of lots and almost $500.00 for care of lots, when a fair estimate might have anticipated, under ordinary conditions, a revenue of $8,500.00 from sales and $4,500.00 for care.

The expenses of the year have been extraordinary. Besides the usual and necessary work of caring for that portion of the Cemetery already prepared, most of the newer and unused part has been laid out. All of the territory remaining within the control of the Board has been surveyed and a comprehensive plan drawn, so that the work of arranging may be completed during the coming season.

About 1,600 feet of new main avenues have been built in the southwesterly part of the grounds, and in these avenues drains and catch-basins have been placed to carry away surface water; 400 feet of avenue, 16 feet in width, have been re-graded; the "Winchester Mansion," so-called, has been removed; a large amount of grading and filling accomplished, more especially in the vicinity of the new avenues; many new lots and graves have been prepared, ready for sale, so as to satisfy the varied desires of intending purchasers; the new Soldiers' and Sailors' Lot has been beautified and finished, the walks and paths being entirely laid and the shrubbery planted; the "Oval" Lot, so-called, in which were interred the remains of the Soldiers and Sailors who were first buried in the Cemetery, has been subdivided into lots, and the path named Iris Circle; and an amount of routine work accomplished greater than ever before.

A few statistics, culled from the report of the Superintendent, will more accurately delineate the detail of the work which has been done:

Number of lots prepared	39
Estimated value of the same	$6,824 25
Number of lots ready for sale	173
Estimated value of the same	$50,018 86
Number of single graves ready for sale	160
Estimated value of the same	$2,760 00
Number of interments	662
Number of removals to other cemeteries	7
Number of interments in cemetery (total)	21,003
Number of burials (Overseers of Poor)	42
Number of monuments erected	11
Number of headstones erected	122
Number of lots sold	30
Number of graves sold	26
Average number of men employed	17

Much, however, still remains to be done. Outside of the newer portion of the grounds of which we will speak in another part of the report, several of the main avenues need to be rebuilt.

The desirability of this course has been manifest during several years past but the means to accomplish the work have been lacking, and only such temporary repairs have been made as was warranted by the appropriation. The wear and tear of each recurring season has eventually created a necessity where heretofore the re-building was considered to be advisable only. The reconstruction of Willow and Fir Avenues would have been attempted during the past season did not the more pressing work of preparing for sale the unused portion of the Grounds require the expenditure of more funds than were at the disposal of the Board.

These avenues were constructed in 1885, after the acquisition by the City of the "Winchester" property and constant use has now rendered them unsuitable in certain periods of the year, and, being main avenues, they should be maintained in excellent condition.

If the good appearance of the Cemetery, with its reputation for neatness and exacting care, is to be maintained, the work of rebuilding should be no longer delayed, and a sufficient appropriation should be forthcoming.

The Lawn System.

The radical departure in cemetery design which has been inaugurated by the Board during the past year in the portion of the Cemetery last acquired, calls for a passing notice. As suggested in our report for last year, it has been the intention of this Board to lay out this territory without any marked paths or spaces between the lots, preferring to have the intervals covered with verdure, in the belief that a large expanse of smooth green, unbroken save by the memorial tablets, would undoubtedly be more pleasing to the eye.

By being kept carefully trimmed it was felt that the result would be gratifying to artistic tastes. Besides, it was believed that the economy of space under this system would give to the Board a much larger number of lots for disposal, than under the method hitherto in use.

Recognizing the desirability of performing this task in a permanent and satisfactory manner, the aid of expert knowledge was sought and the firm of Messrs. Gray and Blaisdell of Boston, landscape architects, have made the plans and superintended the work of construction of the avenues and drainage. It was at first hoped to complete all the work during the past year, but the cost of the undertaking precluded the possibility. However, the larger part of the work was attempted. Bids were secured, and the contract was awarded to the lowest bidder, who certainly gave to the City a creditable account of his labor.

The large avenue, connecting Winchester and River Avenues, which has been named Greenwood Avenue, extending from a point near the Superintendent's house to the southerly gateway, is now completed. A connecting loop has also been constructed, sufficient catch basins to drain the territory have been laid, and, early in the coming season, it is contemplated to commence a subdivision of the adjoining space into lots.

It is confidently expected that the introduction of this somewhat novel idea in Cemetery landscape effect will meet with the approbation of the owners of lots and prospective purchasers, and inure to the advantage and beauty of the Cemetery.

To more fully comprehend the value of the work undertaken under this system, we would suggest consideration of the following items of the number of lots and graves provided for in the section already laid out, to wit:

Single graves in public ranges	1,139
Single graves in private range, 36 sq. ft. area	173
Two grave lots, area 145 to 199 sq. ft.	252
Four “ “ “ 100 “ 149 “ “	496
Six “ “ “ 150 “ 199 “ “	330
Eight “ “ “ 200 “ 299 “ “	250
Twelve “ “ “ 300 “ 319 “ “	71
Lots for more than twelve graves, area 320 to 500 sq. ft.	38
Total	2,749

But a small part of the grounds remains uncompleted, yet this portion, though rather small in area, is likely to prove an expense disproportionate to its extent.

Before the features indicated on the plans can be realized, a large amount of filling and grading must be done. This, with the continuation of the avenues already constructed and the building of connecting ways, will require of necessity a liberal appropriation. It seems to this Board that the sum of $2,000.00 should be allowed for this special work, and its appropriation is heartily recommended.

Soldiers' and Sailors' Lots.

The lot on Prospect Avenue was given the customary care and attention throughout the season, at an expense of $250.00.

The lot recently laid out, near the entrance has been further beautified and may now be said to be finally completed.

The arrangement of plants and shrubs surrounding this lot has had a most pleasing effect deserving of the favorable comments of visitors throughout the season. A notable occurrence was the completion of the Memorial Urn and its erection in the center of the lot. This work was finished in season for the formal dedication which occurred on Sunday, May 24th, last.

The dedication was made the occasion of special exercises, at which was present a large concourse of people attracted by the fervent patriotism of the event. Representatives of religion, business and social leaders, civic and military officials, attested by their presence, their special interest in the cause of the gathering, while the local Posts of the G. A. R. and a company of militia attended in full numbers.

In the exercises which followed the unveiling of the Urn, Hon. Wm. A. Bancroft, Mayor, represented the City, and the Chairman of this Board, addressed the gathering in behalf of the Cemetery Commissioners. The Urn is dedicated to the memory of the "Unknown Dead" and is a chaste and beautiful tribute to the valor of those numberless ones whose resting place is not within man's knowledge but whose memory is forever green.

Great credit is due the several Woman's Relief Corps of this City for the conception and execution of the memorial.

As has been truly said, "to many a household the memorial will be a comfort in its suggestion that those who sleep in unknown graves are not forgotten by those for whom they gave their lives. The Urn will tell of the gratitude of a people towards those whose lives were actually laid down where no loving hands could close the eyes of the dying or lay away the dead in hallowed soil."

Especially distinctive is the memorial in being the first in the land to be erected by the women in memory of the unknown dead.

Ward One Burial Ground.

It has been the wish of this Board to give special attention to this, the oldest burial ground in the City. Since its care was entrusted to this Board by the City Council, no effort has been spared, consistent with the prudent economy rendered absolutely necessary by the limited appropriation, to preserve its main features so as to merit the approbation of our citizens.

It is now an unusual event to chronicle the fact of an interment in this Ground, and so the past season witnessed a rare occurrence in the burial of the remains of Altamont Warland in the Warland Tomb.

The expense of maintenance during the year was $192.77.

To avoid needless repetition, reference is made to the last report of this Board on the wants of this Burial Ground. The suggestions made in that report may be emphasized here, and it might not be amiss to quote one part of the report to show the desirability of special attention in a new line of action.

In that report we said : —

" Much doubt has existed for many years on the true bounds of this Burial Ground, and, as the surrounding property is being improved, it seems desirable that an accurate and thorough survey of the Grounds, and other examination, should be made to discover its true extent and proportion." What seemed desirable last year is now respectfully urged.

It is understood that within a short time, possibly during the coming season, the First Parish Society, whose property adjoins the Burial Ground, will erect a new church, and a survey of the ground, with an examination of the titles, is necessary, that the rights of the public and the owners of adjoining property may be determined.

This is very important, because at this time, there is no authentic plan of the Grounds, the present lines being determined rather by tradition than from record. The expense will probably reach $500.00, but it is equally probable that there will never be a time when the work can be done more economically, and a solution of the vexed question of vested rights is a matter of considerable moment to the City.

The collection of the inscriptions on the tombs and stones, and a plan of the Ground which would show in detail the location of each lot and tomb, could be commenced, and in a season or two the City would possess what it so much needs, an authentic knowledge of the inmates of this Ground and its extent, in a form most easily available.

When it is remembered that few places in this country can point to a more ancient history than our City and Town, that the brawn, the culture, the intellect, the patriotism of the early founders of our Country, have representatives sleeping beneath this sod, it is not to be wondered that our citizens have a particular interest in anything that pertains to the preservation of this historical place. Evidence of this interest is never wanting; even the groups of tourists spare a moment to wander reverentially around this enclosure and learn the lesson taught.

The remembrance of earlier days are fraught with memories of events that are to us sacred possessions, inseparably linked, as they are, with lives and deeds, recalling the valiant, unceasing endeavors of the founders of our Country. And the presence of these sad reminders of a glorious and successful past, "temples of silence and reconciliation," should be an incentive to us to avail ourselves of the present opportunity ere that opportunity shall have passed away.

Perpetual Care.

We are pleased to record the placing in perpetual care of 16 additional lots during the year.

There are now in the Cemetery 271 lots for whose perpetual care provision has been made and the increasing number seems to warrant our assertion, often repeated, of the efficacy of this method of caring for lots and graves.

The amount expended on this account was $996.57.

The fund from which the income is derived to perform the services required under the conditions for perpetual care, now amounts to $36,347.48.

This fund is invested in registered bonds of the City of Cambridge and is now sufficient to meet all demands upon it.

Summary.

The Board would respectfully request favorable consideration of the following items of necessary, special appropriation: —

1. The completion of the work of laying out the unused portion of the Cemetery. For the proper carrying out of this project, it will be advisable to secure the advice of expert authority, to have a careful survey of the remaining territory, with the necessary incidental matters of grading and filling, at an expense of about $2,000.00.

2. The preparation of a suitable map of the Cemetery and its sub-divisions for which an appropriation of $300.00 will be necessary.

3. The construction and rebuilding of several roadways, which will probably cost about $500.00.

4. The repairing of the fence on the line of the Mount Auburn property, at an expense of $100.00.

5. The procuring of a card index for the convenient classification of burials, at an expense of $50.00.

6. The procuring of a safe for the additional Cemetery Records and Documents, at a cost of $125.00. This latter request is made, because it has seemed to the Board that a safe of moderate size would serve all purposes for a considerable time, although the better way would be to erect a more commodious building than the present Lodge, in which there might be provided sufficient space for all needs.

7. The survey of the old Burial Ground in Ward One, so that the lines of the territory may be properly defined. This will render necessary a complete examination of the title to this land and the determination of the rights of several owners of property in the vicinity. The expense will probably be about $300.00.

GEORGE S. SAUNDERS,
CHARLES O. WELCH,
NATHAN C. LOMBARD,
HERBERT A. CHASE,
WM. A. BERTSCH,
JOHN H. H. McNAMEE,

Board
of
Commissioners
of
Cambridge Cemetery.

REPORT OF THE CITY ENGINEER.

Office of the City Engineer, City Hall,
Cambridge, December 1, 1896.

To the Honorable the City Council:—

I herewith submit the thirtieth annual report of the City Engineer, showing the operations and expenditures of the departments of Engineering and Sewers for the year ending December 1, 1896.

Office.

Fourteen assistants have been employed in this department the past year at various times, beside the clerk. In addition five assistants have been employed on work for the Park Department, and twenty-eight assistants on work for the Water Department.

The yearly summary of work done is as follows:—

For Street Department.

Number of street lines given	186
Number of street grades given	178
Number of surveys	9
Number of streets on which paving, curb, etc., was measured	113
Number of assessments prepared	411
Number of plans or profiles prepared	26

For the Sewer Department.

Number of lines given	133
Number of grades given	172
Number of sewers measured	78
Number of plans or profiles prepared	29
Number of sewers assessed	56
Number of sewer assessments prepared	197
Number of surveys	11

For Water Works.

Not including work done at Hobbs Brook Basin.

Number of lines given	6
Number of grades given	430
Number of surveys given	91
Number of plans or profiles made	18

For the Park Department.

Number of surveys made	69
Number of grades given	150
Number of plans or profiles made	4

For Private Parties.

Number of street lines given	46
Number of street grades given	49

Miscellaneous Work.

Number of houses measured	4,200
Number of plans or profiles prepared	17
Number of plans for street numbering	20
Number of plans for assessors	130
Number of surveys or levels made	79
Number of grades given	45
Number of streets renumbered	23
Number of surveys at Cemetery	7
Number of stone bounds set	28

There are now on file in the office 4,473 plans.

Assessors' Block Plans.

The work of making these plans for use of the Assessors' Department has been pushed the past season, nine assistants being engaged on the work at times. Practically all the field work or measurements are now completed. One hundred and thirty sheets have been completed and turned over to the Assessors. Seventeen more are in an unfinished condition. The balance of the sheets should be completed the coming year.

Street Numbering.

By an order approved July 21st, 1896, the City Engineer was "authorized to renumber all the streets in the City that in his judgment need renumbering." Acting under this order a careful examination of every public street in the City was made, and its condition as regards numbers noted. Such streets as seemed to require it were renumbered entirely and on all streets the owners or occupants were notified of missing or erroneous numbers and directed to affix the proper number. A marked improvement has been made in this important matter.

Financial.

Appropriation, Engineering	$12,000 00	
Expended	11,401 79	
Balance unexpended		$598 21
Assessors' plans	3,000 00	
Expended	2,809 76	
Balance unexpended		$190 24

In addition to the above there has been expended and charged directly to the Departments for Engineering expenses, as follows: —

Water Works:—		
Payson Park Reservoir	$4,446 21	
Hobbs Brook Basin	11,461 08	
Park Department	3,489 42	
Making a total expenditure for Engineering of		$33,608 26

Street Widenings.

Boylston Street and Harvard Square.

After much discussion and the consideration of many plans, estimates and suggestions, Boylston Street was widened on its Westerly side so as to make a street sixty feet in width, and the line on Harvard Square between Boylston Street and Dunster Street was altered to straighten the line at this point. The order for the work was dated December 24, 1895.

The work of cutting and moving buildings has been completed, the street graded and surfaced, curbs set, and the Street Railway track relocated. In this connection two sewer pipes were laid in the street between, near Eliot Street and the Parkway, and six Catch Basins and a surface drain leading to Charles River, were also built to carry surface water. The cost of this surface drainage, amounting to $1,486.51, was paid in part by the Park Department and in part by the Street Department.

Eliot Street.

In connection with the improvement of Boylston Street and alteration of railway track, the lines of Eliot Street were changed so as to give a width of 70 feet, by an order approved March 25, 1896.

Eighth Street Extension.

By an order dated October 22, 1896, Eighth Street was laid out and extended from Thorndike to Spring Street forty feet wide.

All the above named Streets were laid out "under the provisions of law authorizing the assessment of betterments," and any betterments to be assessed should be levied within two years from the date given.

The streets laid out and accepted during the year are shown in detail on the following table : —

Streets Laid Out December 1, 1895, to December 1, 1896.

STREET.					PLAN.		
Name.	From	To	Length in Feet.	Width in Feet.	Accepted.	Made by	Date.
Allen Street	Massachusetts Ave.	Orchard Street	307	30	Sept. 10, 1896	W. A. Mason	June 10, 1896
Alpine Street	Concord Avenue	Field Street	337	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Bay State Road	New Street	Field Street	740	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Berkshire Street	Cambridge Street	York Street	1,090	40	Nov. 18, 1896	City Engineer	July 14, 1896
Birch Street	Concord Avenue	Bay State Road	426	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Cameron Avenue	Massachusetts Ave.	Somerville Line	568	60	June 25, 1896	W. A. Mason	May 12, 1896
Chilton Street	Concord Avenue	Field Street	376	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Copley Street	Fayerweather Street	Concord Avenue	523	40	Oct. 14, 1896	W. A. Mason	June 8, 1896
Dale Street	Concord Avenue	Field Street	399	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Eighth Street	Spring Street	Thorndike Street	210	40	Oct. 22, 1896	City Engineer	June 1896
Fayerweather Street	Concord Avenue	Walden Street	960	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Fern Street	Concord Avenue	Field Street	465	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Field Street	Bay State Road	Fayerweather Street	1,211	40	Oct. 14, 1896	W. A. Mason	June 8, 1896
Garden Street	Field Street	Walden Street	960	50	Oct. 14, 1896	W. A. Mason	June 8, 1896
Green Street	Landsdowne Street	Blanche Street	377	40	Dec. 4, 1895	W. H Whitney	Aug. 23, 1895
Hazel Street	Fayerweather Street	Garden Street	258	40	Oct. 14, 1896	W. A. Mason	June 8, 1896
High Street	Holworthy Street	Park Avenue	509	40	Jan. 1, 1896	Ira H. Knight	Dec. 9, 1895
Holmes Street	Holworthy Street	Park Avenue	378	40	Jan. 1, 1896	Ira H. Knight	Dec. 9, 1895
Ivy Street	Fayerweather Street	Garden Street	252	40	Oct. 14, 1896	W. A. Mason	June 8, 1896
Landsdowne Street	Massachusetts Ave.	Green Street	257	50	Dec. 4, 1895	W. H. Whitney	Aug. 23, 1895
Middlesex Street	Rindge Avenue	Wilson Avenue	309	40	Dec. 24, 1895	W. A. Mason	July 31, 1895
Montgomery Street	210 No. of Rindge Av.	Harvey Street	1,149	40	June 25, 1896	W. A. Mason	Nov. 27, 1895
Ninth Street	Spring Street	Vine Street	252	50	June 25, 1896	W. A. Mason	April 18, 1896
Park Avenue	Huron Avenue	Holworthy Street	956	50	Jan. 1, 1896	Ira H. Knight	Dec. 9, 1895
Peters Street	Putnam Avenue	Allston Street	301	40	June 25, 1896	W. A. Mason	July 31, 1895
Vassar Street	Massachusetts Ave.	500 ft. Southeasterly	500	50	Dec. 4, 1895	Aspinwall & Lincoln	Oct. 1, 1895
Walnut Court	Putnam Avenue	Somerset Street	307	30	June 25, 1896	W. A. Mason	Sept. 2, 1895

Total length of streets accepted during the year, 14,377 feet, or 2.723 miles.
Total length of streets accepted Dec. 1, 1896, 88.317 miles.

Bridges.

A careful examination has been made of the bridges maintained by the City. All the bridges will need a considerable amount of repairs, painting, renewal of planking and defective timbers, etc., during the year. The entire deck or top portions of the Third Street and Brookline Street bridges should be renewed at once.

It is imperative that the iron bridges over the railroads at Walden Street and Huron Avenue should be thoroughly cleaned and painted the coming year, as the metal work is being materially impaired by rust and scale.

The bridge at Boylston Street is narrow and not in line of the street as it has been widened. Important improvements are being carried out in this vicinity by the Park Department. To meet the requirements of travel and the Park system, this bridge should be rebuilt at a higher elevation with some more durable material than wood, and with regard to its artistic effect in connection with its surroundings. I believe the time has come for this to be done.

Sewers.

18,309.9 feet or 3.468 miles of new sewers have been built, making the total mileage in the City 101.695 miles. The total cost to date of this construction has been $1,252,304.09.

All the sewers have been built by day labor in charge of the Superintendent of Sewers, under the general direction of the City Engineer.

The following table shows the details of sewers constructed during the year: —

Sewers Constructed between Dec. 1, 1895, and Dec. 1, 1896.

LOCATION.			CONSTRUCTION.							Total Cost.
Street.	From	To	Material.	Size in Inches.	Av. depth of Cut.	Man-holes.	Lamp-holes.	Inlets.	Length in Feet.	
Aberdeen Ave. (E'ly and W'ly side)....	End of old sewer...	Huron Ave.........	Akron pipe.....	15 and 8	8.0	2	1	26	628.1	$941 19
Bent..................	Fifth St.............	Sixth St.............	Akron pipe.....	10	6.3	1		30	338.5	229 48
Berkshire Place.....	Portland St.........	Berkshire St........	Akron pipe.....	10	7.0	1	1	20	289.4	284 32
Berkshire...........	Near Cambridge St.	Near York St.......	Akron pipe.....	12 and 10	7.2	2	3	43	945.9	549 65
Bismarck (see Tannery Brook sewer)	End of old sewer...	Near Harvard Sq...	Akron pipe. ...	8	7.5			4	47.6	*
Boylston St. and private lands.........	Dunster St....... ..	Parkway...........	Portland and Akron pipe	12, 10 and 8	8.4	5	2	65	970.9	4,227 89
Buena Vista Park and private lands.	Richdale Ave.......	Near Huron Ave...	Akron pipe.....	10 and 8	8.4	1	1	27	497.3	454 39
Camp.....	Seven Pines St.....	Fair Oaks St........	Akron pipe.....	8	7.0	1		28	383.9	*
Clarendon Ave.....	Near Mass. Ave....	Near Somerville line	Portland pipe..	10 and 8	7.9	1	2	37	579.0	*
Clay.................	Near Rindge Ave...	Harvey St..........	Akron and Portland pipe	15. 12 and 10	7.8	4		89	1,213.8	1,227 41
Clifton	Near Rindge Ave...	Near Harvey St. ...	Portland pipe...	18, 15 and 12	6.3	3		71	918.1	1,514 95
Davenport..........	Saginaw Ave.	Easterly.	Portland pipe...	8	7.6		1	6	98.2	77 23
Dudley.............	Clifton St...........	Montgomery St.....	Concrete, Brick and Portl'd pipe.	24 x 26, 20 and 10	5.6	2	1	58	758.8	1,652 53
Fair Oaks..........	Camp St............	Cameron St.........	Akron pipe.....	8	6.3		1	10	154.8	*
Amt. car. forward,	....	....	....	....	....	23	13	514	7.824.3	$11,159 04

* Included in cost of Tannery Brook.

Sewers Constructed between Dec. 1, 1895, and Dec. 1, 1896 — Continued.

LOCATION.			CONSTRUCTION.							Total Cost.
Street.	From	To	Material.	Size in Inches.	Av. depth of Cut.	Man-holes.	Lamp-holes.	Inlets.	Length in Feet.	
Amt. bgt. forward.	....	....	....	....	....	23	13	514	7,824.3	$11.159 04
Fairmont	End of old sewer	Near Magazine St.	Akron pipe	10	6.3		1	6	48.6	44 20
*First	Binney St.	Vine St.	Brick and Portland pipe	25 3-8x32 3-4 24x26, 20x22 and 12	13.4	4		67	1,008.4	7,497 24
Frances Place	Montgomery St.	Westerly	Akron pipe	8	6.9		1	6	129.0	101 93
*Gilmore St.	Western Ave.	Southerly	Akron pipe	15	8.4			4	128.3	552 69
Gordon Place and private way	Magazine St	Northerly and Northeasterly	Akron pipe	8	7.0	1	1	17	344.2	222 53
Harvey	Jackson St.	Montgomery St.	Akron pipe	10	8.7		2	34	461.0	568 40
Holyoke Place	Holyoke St.	Easterly	Akron pipe	10	8.0		1	6	99.9	85 49
Huron Ave.	Aberdeen Ave.	Fresh Pond Lane	Portland pipe	15, 12 and 10	8.7	2	1	32	815.8	1,214 87
Jackson	Rindge Ave.	Harvey St.	Portland and Akron pipe	15, 12 and 10	7.4	3		98	1,387.1	1,539 35
Lincoln	Portland St.	Berkshire St.	Akron pipe	15	8.6			22	344.5	366 53
*Lyman	Murray St.	Westerly	Portland pipe	10	3.0	1	1	26	410.2	1,057 00
Marney	Portland St.	Berkshire St.	Akron pipe	15	9.2			23	344.9	692 92
Mill	Plympton St.	Easterly	Akron pipe	10	8.0			12	59.3	†147 62
Newman (see Tannery Brook sewer)										‡
Amt. car. forward.	....	....	....	....	....	34	21	867	13,405.5	$25,249 81

* Pile foundation, ‡ Included in cost of Tannery Brook. † Includes cost of 89 feet rebuilt.

Sewers Constructed between Dec. 1, 1895, and Dec. 1, 1896 — Concluded.

LOCATION.			CONSTRUCTION.							Total Cost.
Street.	From	To	Material.	Size in Inches.	Av. depth of Cut.	Man-holes.	Lamp-holes.	Inlets.	Length in Feet.	
Amt. bgt. forward.	....	....	....	....	....	34	21	867	13,405.5	$25,249 81
Palermo............	Willow St..........	Windsor St.	Akron pipe.....	10	6.6		1	16	243.6	149 78
Peters..............	Allston St..........	Southerly..........	Akron pipe.....	10	7.7	1		14	227.7	225 95
Spruce Ave..........	Holworthy St.......	Westerly...........	Akron pipe.....	10	8.0	1	1	16	248.1	216 60
Sterling Terrace....	Columbia St.........	Westerly......	Akron pipe.....	10	3.6		1	11	130.0	69 63
"Tannery Brook sewer"........	Alewife Brook.....	Near Cameron St...	Akron and Portland pipe	15, 12 and 10	7.2	13		84	2,255.7	3,971 24
Third..............	Near Munroe St....	Southerly	Portland pipe..	15, 12 and 10	7.4	2	1	36	465.0	604 85
Washburn Ave......	Near Mass. Ave....	Near Somerville line	Akron pipe.....	10 and 8	7.7	1	1	50	631.3	*
Willard St. Court...	Willard St..........	Easterly...........	Akron pipe.....	10	6.2		1	6	105.9	58 94
Windsor.............	Market St..........	Southerly..........	Akron pipe.....	10	5.7		1	6	97.2	75 19
Winthrop	Eliot Sq.............	Winthrop Sq........	Akron pipe.....	10	8.4		1	16	248.5	239 35
Wyman.....	Avon Hill St........	Westerly	Akron pipe.....	10	6.7		1	10	159.2	119 94
Yorktown	Tann'y Brook sewer	Somerville line....	Akron pipe.....	10	6.3			8	92.2	*
						52	30	1,140	18,309.9	$30,981 28

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* Includes cost of 89 feet rebuilt.

Sewers Reconstructed between Dec. 1, 1895, and Dec. 1, 1896.

LOCATION.			CONSTRUCTION.							Total Cost.
Street.	From	To	Material.	Size in Inches.	Av. depth of Cut.	Man-holes.	Lamp-holes.	Inlets.	Length in Feet.	
Broadway	Cambridge St.	Ellery St.	Brick	27x34 7-8, 25 3-8x32 3-4	14.5	5		64	1,900.4	$12,920 18
Cambridge	Ellery St.	Ellsworth Ave.	Portland pipe	24	7.3	2		13	615.2	†
Charles	Second Street	Third St.	Portland pipe	18	10.5	2		29	438.9	1.658 32
Greenough Ave.	Ellsworth Ave.	Easterly	Akron pipe	10	7.7			4	112.8	79 20
Grigg	Howard St.	Magee St.	Akron pipe	15	9.7			10	189.9	‡
Magee	Grigg St.	Northerly	Akron pipe	12	9.3			20	272.3	1,409 70
Martin	Massachusetts Ave.	Hurlbut St.	Portland pipe	18	7.0			2	158.6	188 19
*Putnam Ave.	Pleasant St.	River St.	Portland pipe	15	8.6	2		57	814.9	4,387 21
Third	Broadway	Northerly	Akron pipe	10	5.8	1		8	163.8	208 52
						12		207	4,666.8	$20,851 32
Sewers Constructed by Metropolitan Water Board on account of laying 48-inch Water Pipes.										
Boylston	Near Parkway	Northerly	Akron pipe	8	8.1	1	1	16	425.6	
Boylston	Eliot St.	Winthrop St.	Akron pipe	8	9.3	2		10	288.6	
Green	End of old sewer	Magazine St.	Akron pipe	12	6.5		1	3	64.6	
Magazine	Auburn St.	Near Central Sq.	Akron pipe	10	10.4	2	1	14	360.0	
Norfolk	Massachusetts Ave.	Harvard St.	Akron pipe	12 and 8	7.6	5	1	37	1,111.6	
Norfolk	Cambridge St.	Broadway	Akron pipe	15, 12, 10 & 8	7.2	9		60	1,603.1	
						19	4	140	3,853.5	

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* 695 feet on pile foundation.

† Included in cost of Broadway.

‡ Included in cost of Magee Street.

Classified Schedule of Sewers as Built in Cambridge to Dec. 1, 1896.

	Lengths.	Totals.	Sizes.	Oval Brick.	Lengths.	Totals.
6 in. drain Pipe	811.30 ft.		From 8 in. x 8 in. to 16 in. x 18 in.	Sewers .	68,799.40 feet...............	316,830.37
8 " "	12,636.25 "		" 16 in. x 22 in. to 20 in. x 24 in.	" .	33,580.20 "	
9 " "	1,866.20 "		" 22 in. x 28 in. to 24 in. x 30 in.	" .	27,678.40 "	
10 " "	106,123.82 "		" 26 in. x 30 in. to 32 in. x 36 in.	" .	19,560.64 "	
12 " "	110,019.07 "		" 32 in. x 41 in. to 36 in. x 42 in.	" .	17,806.76 "	
15 " "	44,524.82 "		" 42 in. x 48 in. to 40 in. x 52 in.	" .	9,894.14 "	
18 " "	13,665.86 "		" 48 in. x 54 in.		2,609.08 "	
20 " "	4,533.47 "		" 51 in. x 63 in.		2,220.00 "	
24 " "	†5,941.83 "	300,142.62	" 60 in. x 66 in.		992.90 "	
12 " Circular brick Sewers	963.10 "		" 90 in. x 90 in.		576.10 "	
20 " " "	250.80 "		" 96 in. x 100 in.		6,076.27 "	
24 " " "	3,343.60 "		" 96 in. x 116 in.		632.00 "	190,425.89
30 " " "	257.00 "		Brick and Stone. unknown sizes.			15,071.70
36 " " "	6,575.85 "		Tidal Outlets.....................			3,290.00
48 " " "	5,297.40 "	16,687.75	Wood Drains.....................		10 in. x 10 in. to 36 in. x 40 in.	11,725.65
		316,830.37			Grand Total...........	537,343.61

† This includes 70,740 feet of Cement Pipe..
229,402.62 " " Vitrified "
300,142.62 feet total = 101.769 miles.

Catch Basins.

Fifty-three catch basins have been built at a cost of $2,875.90, and in addition six catch basins were built in Boylston Street and paid for by the Street Department and the Park Department. Five thousand four hundred and fifty-five loads have been removed from 1,589 catch basins, at a cost of $4,147.00. This work has all been done by day labor. Thirty-seven catch basins have been repaired.

Storm Relief Sewers.

The storm relief sewer in Massachusetts Avenue, begun October 19, 1895, was completed December 12th, 1895. Three thousand one hundred and eighty-four and eight-tenths feet of sewer was built at a cost of $17,797.80. While this sewer served its object and relieved the district covered, from storm water in cellars, the section above its terminus still suffered. To remedy this, the sewer was extended to Mt. Vernon Street, a further distance of 848.8 feet at a cost of $1,801.90.

Broadway Storm Relief Sewer.

For some time residents between Broadway and Cambridge Street, Ellery Street and Highland Avenue, have complained of imperfect drainage and wet cellars. To remedy this an additional sewer was laid in Cambridge Street from Ellery Street to Ellsworth Avenue, and a new and larger one laid in Broadway, connecting with the Oxford Street sewer at the College grounds, and extending to Ellery Street. This sewer is laid at a very much greater depth than the old ones, which were very shallow. The length of sewer laid in Cambridge Street is 615.2 feet and in Broadway is 1,900.4 feet. The total cost of these sewers is $12,920.18.

Metropolitan Sewer Connections.

The work of connecting the outlets with the Metropolitan Sewer System has been continued during the season. Connections at Hawthorn Street, Murray Street, Dunster Street, Plympton Street, Western Avenue, Pleasant Street, Pearl Street and Brookline

Street have been made, leaving the connection at Talbot Street, near Fort Washington, the only one still to be made.

The City of Somerville not having connected its sewer on Somerville Avenue with the Metropolitan Sewer, it has been impossible to take the Bridge Street Sewage through the connection at Binney Street. This connection is now nearly completed, however, and at a very early day this work can be completed and the discharge of sewage under Craigie's Bridge stopped.

The total amount expended during the year on Metropolitan Connections is $12,140.50.

Tannery Brook Sewer.

The territory in North Cambridge crossed by Tannery Street and Cameron Avenue and drained by "Tannery Brook" so called, has long been in bad sanitary condition. Owing to the fact that a large part of the drainage area of the brook was in Somerville, and the further fact that much of the territory in Cambridge was so low as to render good drainage difficult, until this year nothing had been accomplished. Negotiations with Somerville were begun last year looking toward joint action in the matter. On May 20, 1896, an agreement with Somerville was approved under which Cambridge was to construct a portion of the sewers in Cambridge and the City of Somerville was to construct the storm drain which takes the place of the brook, and a portion of the house sewers. The cost of constructing these sewers to be borne by the two cities substantially in the ratio of the areas drained in each city. This agreement has been substantially carried out, the sewers constructed and connection made with the Metropolitan Sewer. The final adjustment of cost between the cities has not yet been made.

Sidney Street Sewer District.

The district in the vicinity of Sidney Street between Green and Auburn Street has for some time been troubled with imperfect drainage and the low grade at which cellars and buildings are built. A special report was made to the Board of Aldermen dated December 2, 1895, on this matter. This should receive attention the coming season, and a proper system of sewers constructed.

This in connection with the raising of buildings and filling cellars to a proper grade will remedy the trouble.

Clay Land Sewers.

For a number of years the question of restricting the excavation of lands in North Cambridge for brick-making purposes has been agitated. The clay from enormous areas has been dug out to a great depth, to the positive detriment of adjoining lands, the disfigurement of the locality as a whole, and, it was feared, to the injury of public health.

To check the increase of this evil in some degree, the City on April 16, 1896, made an agreement with one of the largest offenders in this respect, the Bay State Brick Company, by which in consideration of the Company's agreeing not to excavate for brick-making purposes a large tract of their land bounding on Concord Avenue, the City agreed to construct certain streets and sewers upon this land, as shown upon a plan submitted by the Bay State Brick Company.

In accordance with this agreement, the work of constructing sewers in these streets was begun, and about 2,500 feet of sewers have been constructed.

The expenditure for this work has been $6,868.68. The filling on streets requiring it should be done this coming winter, so that the remainder of the sewers can be built during the summer of 1897.

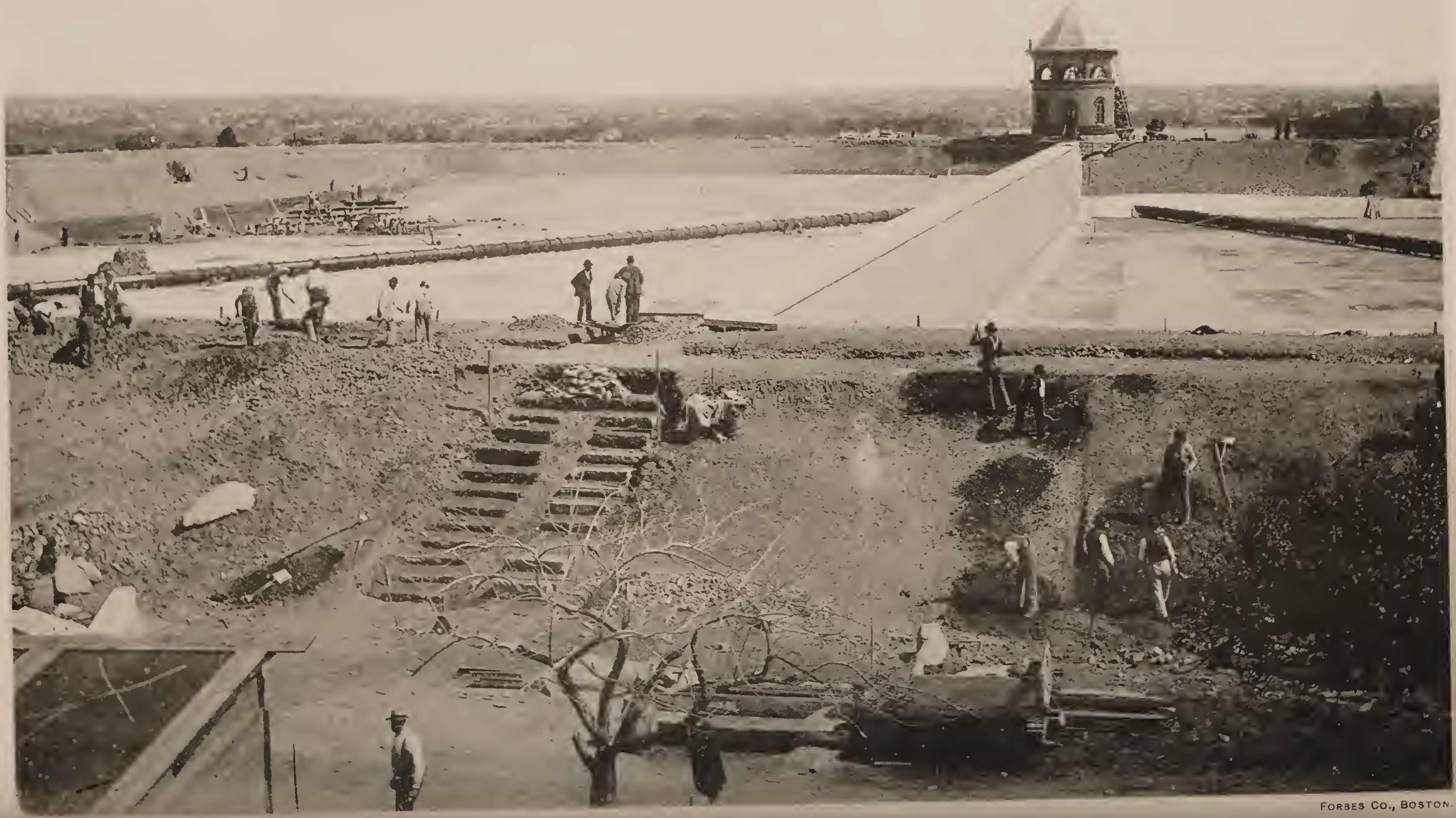
Financial.

Construction. General.

Appropriation	$35,000 00	
Expended	32,103 76	
Balance unexpended		$2,896 24
(Receipts from assessments)		11,418 66

Maintenance.

Appropriation	$19,641 63	
Expended	19,641 63	



FORBES CO., BOSTON.

Broadway Storm Relief.

Appropriation	$14,000 00	
Expended	12,920 18	
Balance unexpended		$1,079 82

Massachusetts Avenue Storm Relief Sewer.

Appropriation	$11,545 04
Expended	11,545 04

Metropolitan Connections.

Appropriation	$17,000 00	
Expended	12,140 50	
Balance unexpended		$4,859 50

Tannery Brook.

Appropriation	$8,000 00	
Expended	3,971 24	
Balance unexpended		4,028 76

Clay Lands.

Appropriation	$50,000 00	
Expended	6,868 68	
Balance unexpended		43,131 32

Water Works.

Water has wasted over Roberts Dam 225 days during the year, and was below the crest of the dam 141 days. The highest water, reached February 7, 1896, was 2.30 feet above the crest. Elevation, 83.30. Two hundred and ninety-five million gallons passed the dam that day. On September 5, 1896, the lowest water was reached, 14.87 feet below the crest, elevation 66.13.

Water wasted on the dam 225 days as follows:—

December,	1895	926,500,000	gallons
January,	1896	439,700,000	"
February,	"	1,261,600,000	"
March,	"	1,878,800,000	"
April,	"	795,800,000	"

May,	1896	207,800,000	gallons
June,	"	59,100,000	"
July,	"	————	"
August,	"	————	"
September,	"	————	"
October,	"	900,000	"
November,	"	282,500,000	"

Total amount passing the dam during the year, 5,852,700,000 gallons.

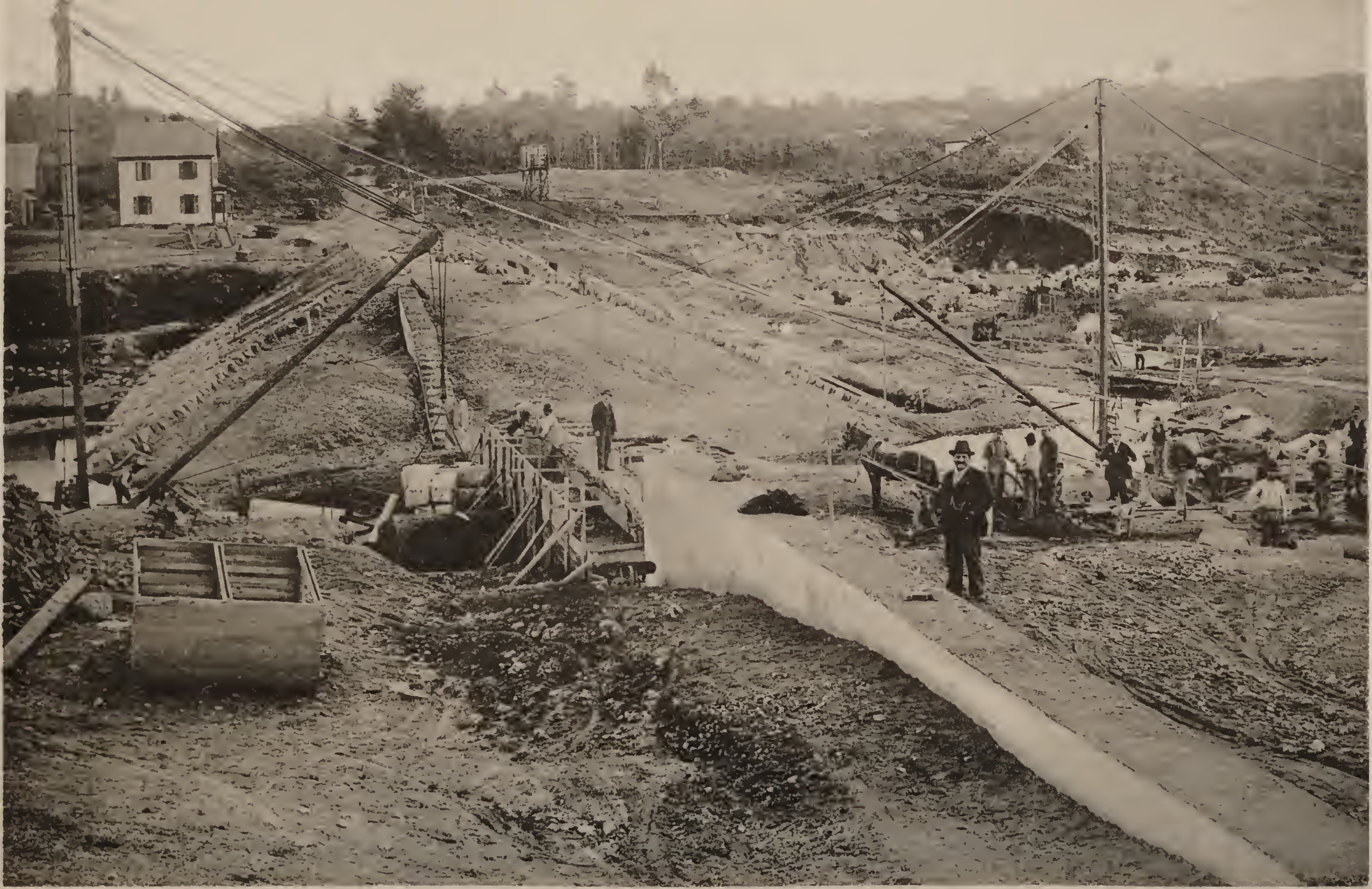
At Fresh Pond the highest water was on April 27, 1896, at elevation 16.49. The lowest water, November 24, 1896, at elevation 10.95.

Payson Park Reservoir.

The work of constructing this reservoir was begun in 1894 under a contract with Mr. R. A. Malone of Lancaster, Pa. During the season of 1895 substantial progress was made, the excavation nearly completed, and much of the masonry and lining for the southerly basin placed. Much trouble was experienced in securing satisfactory work from the contractor, a great deal of it proving of inferior character, and so by mutual agreement the contract was rescinded and the work was completed by the City by day labor under the direction of the Engineer with Mr. L. M. S. Horton as Superintendent in charge of construction.

The reservoir is now practically completed except placing the loam on the banks and seeding the same.

The natural conditions at the site proved to be very unfavorable. The underlying rock, which in places comes near the surface, is a shattered and partly disintegrated slatestone full of seams, fissures, and voids, overlaid with a fine earth. Great care was taken to prevent the washing of this earth into the cracks and fissures of the rock. The bottom of the site was thoroughly under-drained, where rock was encountered, to remove the ground water and also to detect and remove any leakage from the Reservoir. The bottom of the southerly basin is covered with a sheet of American concrete 6 inches to 9 inches thick and on this is laid a coating o an asphaltic mixture about ½ an inch thick poured on while melted.



FORBES CO., BOSTON.

LINCOLN ST. DAM.—CONSTRUCTION, NOV. 7, 1895.

The north basin is covered with about 8 inches of American concrete, and on this is spread another coating of fine Portland concrete about 4 inches thick troweled to a smooth surface. The slopes are covered with brick laid on a concrete base from the bottom to the top of the original surface of the ground. From this point to the top of the bank the slope is paved with heavy stone paving laid on a bed of cracked stone ballast.

A substantial brick and stone gate house surmounts the chamber containing the gates and valves.

Contracts for furnishing supplies and materials were made as follows: —

Damon & Gould Company, American cement; Waldo Brothers, Portland cement; Massachusetts Broken Stone Company, cracked stone; William B. Mullen, sand; John J. Brassil, teaming; R. D. Upham, asphalt material; Simpson Brothers, placing asphalt; Norcross Brothers, building gate-house.

Hobbs Brook Basin.

Satisfactory progress has been made under the various contracts for work at this storage basin. The Lincoln Street Dam was completed August 5, 1896, by the contractors, Messrs. Gennaro, Long & Little. The total amount paid under their contract was $25,283.92.

The Winter Street Dam was completed by the Standard Construction and Supply Company, December 12, 1896. The final payment on this contract has not yet been made.

The flow of water over the weir at Winter Street Dam from December 1, 1894, to December 1, 1895, was 2,217,825,000 gallons.

The rainfall was 48.16 inches.

Water has flowed over the weir at Winter Street Dam from December 1, 1895 to December 1, 1896, as follows: —

December,	1895	202,430,000	gallons
January,	1896	116,930,000	"
February,	1896	355,210,000	"
Amount carried forward		674,570,000	gallons

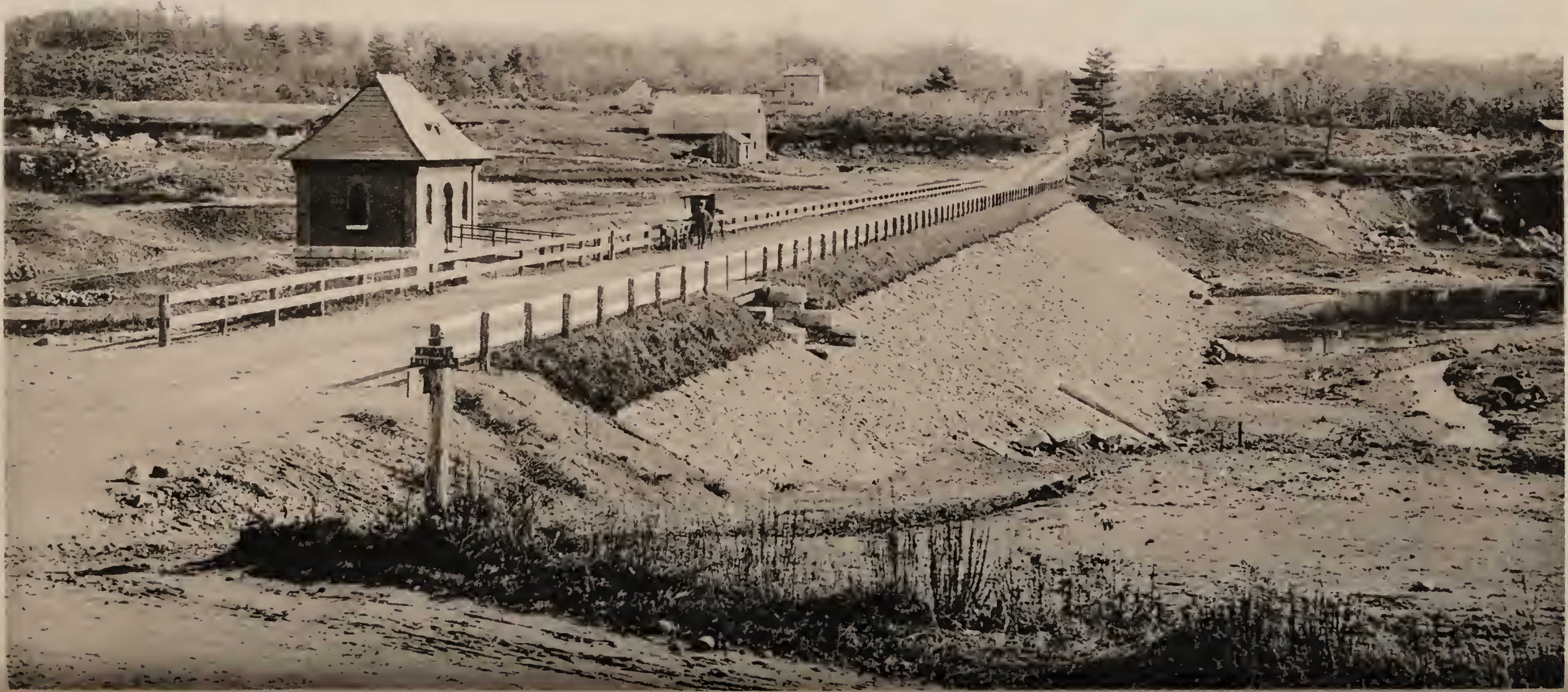
Amount brought forward		674,570,000	gallons
March,	1896	548,860,000	"
April,	1896	166,370,000	"
May,	1896	90,060,000	"
June,	1896	67,250,000	"
July,	1896	17,300,000	"
August,	1896	8,280,000	"
September,	1896	72,510,000	"
October,	1896	85,870,000	"
November,	1896	101,340,000	"
Total amount		1,832,410,000	gallons

The rainfall was 36.82 inches.

The work of stripping and removing the soil from the basin above the Lincoln Street Dam, constructing the shores and covering them with stone or gravel is now nearly completed, and it is hoped to commence filling this part of the basin at an early day. The contractor for this part of the work, called Section " A " and " B," is Mr. Frank X. Saucier.

The Section " C " below the Lincoln Street Dam is nearly completed by Mr. Auguste Saucier. Section " D " adjoining Section " C " and north of Brooks Street has been completed by Mr. Joseph D. Gennaro, and payments amounting to $45,836.88 have been made. The rest of the work of stripping Sections " E " to " J " inclusive, was awarded to T. W. Kinser & Sons, who have made considerable progress, although much yet remains to be done. It is expected it will be finished the coming season. The total estimated amount of material to be removed from the basin was about 2,000,000 cubic yards.

Twenty-two assistants have been employed at various times during the year on the work, under the immediate direction of Mr. W. H. Tuck, Engineer in charge. The usual tables and data relating to rainfall will be found appended.



Forbes Co., Boston.

Table showing Comparison by Months, of Number of Days in which Rain fell, and Total Precipitation at Roberts Dam, Hobbs Brook, Fresh Pond, and Harvard Observatory, December 1, 1895, to December 1, 1896.

		1895.	1896.											
		Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Total.
Roberts Dam.	No. of Days in which rain fell.	5	4	13	11	7	8	8	11	8	13	11	10	109
	Total Precipitation.	2.58	2.34	5.96	5.47	1.79	2.03	2.68	2.87	2.79	6.81	3.18	3.27	41.77
Hobbs Brook.	No. of Days in which rain fell.	6	6	9	11	7	6	5	9	8	11	11	8	97
	Total Precipitation.	1.84	2.33	5.74	3.58	1.48	2.09	2.21	2.12	3.05	6.81	2.74	2.83	36.82
Fresh Pond.	No. of Days in which rain fell.	7	8	12	10	7	10	11	12	10	13	13	11	124
	Total Precipitation.	1.90	2.46	5.62	4.37	1.70	2.42	2.33	2.65	2.45	6.29	3.10	3.53	38.82
Harvard Observatory.	No. of Days in which rain fell.	7	6	13	12	7	6	7	11	7	13	11	10	110
	Total Precipitation.	2.19	3.06	4.35	6.27	1.66	2.04	2.15	2.87	2.13	6.18	3.11	3.34	39.35

Park Department.

The work of surveying and locating the park lines on the river front has been continued the past season as opportunity has offered. The conformation of the harbor line on the river and difficulty in locating the taking line from it, has rendered the work of establishing this line with accuracy a slow process. Surveys and descriptions of the major number of estates taken for park purposes have been made for settlement with owners. A party has been employed all the time which could be spared from other matters upon this work. A considerable progress has been made in filling the lands taken at the Casino Grounds and near Murray Street. Surveys and estimates were made early in the season for a method of completing the river shore from the Cambridge Hospital grounds to Boylston Street, but owing to the uncertainty as regards the future treatment of this river shore, especially relating to the erection of the proposed dam across Charles River below this point, no final decision has been reached, or plan adopted, the filling being done on a tentative plan only as regards the treatment of the river shore.

It seems to me, now that the widening of Boylston Street has been carried out, that the character of the Boylston Street bridge, its abutments and approaches, should be determined before very much more can be done in finishing the parkway at this point.

Much time has been given to the setting out of the work at Cambridge Field for grading, paths, construction of the shelter, playgrounds, and miscellaneous work. Two assistants have been almost constantly employed there.

The sea-wall at the "Front" referred to in my last report, was completed by the contractor, Mr. Thomas A. Rowe, in December, 1895. The total length of the wall constructed is 1,735 lineal feet. The total cost, including inspection, advertising, and printing, is $54,658.42.

Very satisfactory progress has been made in filling in the land acquired by the Park Commission and enclosed by this wall. The ballast required behind the wall has been selected from the coarse quality of filling as it has been obtained from time to time. Act-

Table showing Rainfall at Roberts Dam at Weston, Hobbs Brook in Waltham, the Fresh Pond Pumping Station (Cambridge Water Works), and at the Harvard Observatory, Cambridge, December 1, 1895, to December 1, 1896.

Day of Month.	1895. December.				1896. January.				February.				March.			
	Roberts Dam.	Hobbs Brook.	Fresh Pond.	Harvard Obs.	R. D.	H. B.	F. P.	H. O.	R. D.	H. B.	F. P.	H. O.	R. D.	H. B.	F. P.	H. O.
1			.02	.01					.38	.57	.52	.21	.58	.46	.52	1.42
2	.27	.17	.13	.11					.25			.35	.41	.18	.44	.49
3						T		T					.13	T	T	.68
4		.01	.07	.08						.15	.25	T	.40	.01	.03	T
5		.28	.23	.47					.33	.07	.08	.25				.07
6	.70								.08	2.03	2.03	.18		.02		
7						.15	.13		1.92			1.89		.27	.27	.10
8					.24			.15			.07		.31			.22
9						.47	.40		.41	.27	.52	.25				
10					.57	.16	.03	.51	.30			.29				
11								T		T		T		.20	.62	
12						.04	.07						.50	T	T	.65
13	T	T		T				.57	.30	.62	.47	.02				
14									.31			.48				
15											.04			.26	.39	
16									.12	T	.04	.11	.47	.64	.80	.50
17													.78			.72
18										.08	.06	T				
19						T	.02		.12	.15	.16	.16		.78	.63	.09
20								.01	.36			.12	1.10	T		.50
21		.60	.60	T												
22	.68			.61												
23														T	.02	
24						1.50	1.73									T
25					1.50	.01	.03	1.81						T		
26	T	.26	.30		.03			.01								
27	.35			.31												
28										T						
29									1.08	1.80	1.38	.04		.70	.65	T
30		.52	.55										.69	.06		.83
31	.58	T		.60			.05						.10			
	2.58	1.84	1.90	2.19	2.34	2.33	2.46	3.06	5.96	5.74	5.62	4.35	5.47	3.58	4.37	6.27

Day of Month.	April.				May.				June.				July.			
	R. D.	H. B.	F. P.	H. O.	R. D.	H. B.	F. P.	H. O.	R. D.	H. B.	F. P.	H. O.	R. D.	H. B.	F. P.	H. O.
1		.20	.15							T	.02					
2	.24	.28	.41	.21												
3	.41			.41		.01	.05									
4					.04	T		.02						.28	.31	
5						T							.21		T	.36
6		.04		.06		T								.10	.18	
7	.07		.05							.37	.44	.02	.10	.21	.11	.20
8							.06		.44	.19	.22	.45	.15	T	.01	.15
9					.03			.05	.35		.28	.18		T		
10									.44	.46	.15	.34				
11									.19			.04				
12																
13											.16			T		
14									.22	1.15	.96	.44				
15									.90	T	T	.68	.91	.25	.75	.20
16																.75
17		.28	.23			T				T	.01					
18	.25			.21		T			.04							
19		.33	.40			.56	.56									
20	.56			.38	.47			.62						.31	.19	
21		.28	.17			.02	.04			.04	.03		.25			.18
22	.16	.07	.29	.26	.03	T	.02		.10					.08	.12	
23	.10			.13									.13			.09
24														.67	.65	
25						.14	.13						.63	T	.01	.65
26						T	.03	.15		T	.02		.03			
27					.17									.07	.12	.04
28						.79	.95			T	.04		.19	T		.04
29					.75		T	.56								
30					.40		.50						.13	.15	.11	.21
31					.14	.57	.08	.64					.14		.09	
	1.79	1.48	1.70	1.66	2.03	2.09	2.42	2.04	2.68	2.21	2.33	2.15	2.87	2.12	2.65	2.87

Day of Month.	August.				September.				October.				1896. November.			
	R. D.	H. B.	F. P.	H. O.	R. D.	H. B.	F. P.	H. O.	R. D.	H. B.	F. P.	H. O.	R. D.	H. B.	F. P.	H. O.
1	.83		.76					.04			.02	.01				
2	.24	1.08	.20	.93		T				.06		T				
3						.47	.48		.07							
4					.48			.45		.20	.16	.01			.11	
5	.96	1.02	.98			2.08	1.50		.27	.09	.22	.15		.92	.84	.19
6	.13	.23	.08	.86	2.05	.87	.62	1.49	.08	T		.28	.15			.75
7		T		.11	.74			.45		.10	.06	T	.71			
8									.10					.30	.44	
9						.87	1.22	.01					.54			.42
10					.87	.32	.47	1.55								
11					.42			.22						.05	.05	
12										.11	.25		.09	T	T	.04
13					.11	.34	.18	.14	.28	.67	.74	.48		.17	.41	
14		T			.21			.08	.70	.33	.48	.51	.16			.36
15									.30	T	.01	.47				
16		.06	.03						.09			T				
17				.01		.06	.05									
18		.19	.09		.09	.58	.55	.03		.11	.08					
19	.21	T	.12	.06	.40	.47	.45	.58				.09				
20					.68			.45								
21		.08								T	.01			.42	.42	
22	.11	.33	T	.05		.05	.08						.46			.45
23			.12		.11					1.04	1.03					
24	.22			.11		T			1.15	T		1.06		T	.04	.02
25													.03	.32	.31	
26				T									.27	T	.01	.34
27		T	.02											T		T
28				T		T	.01							.50	.60	.54
29					.57	.70	.65			.01	.03	T	.55	.15	.30	.23
30					.08	T	.03	.69	.09	.02	.01	.04	.31			
31	.09	.06	.05						.05			.01				
	2.79	3.05	2.45	2.13	6.81	6.81	6.29	6.18	3.18	2.74	3.10	3.11	3.27	2.83	3.53	3.34

ing under licenses obtained from the Harbor and Land Commissioners, and also from the Secretary of War, the deeper portions of the foundation of the wall have been protected with stone ballast placed on the outer or water side of the wall. This has been done under a contract with Mr. Hugh Farrell, at a total cost of $3,881.88. With the completion of the filling of the land and grading of Commercial Avenue, the question of the bridge across the canal and the completion of the street to Bridge Street will require early attention.

Four assistants have been employed regularly upon the work connected with the Park Department, and others temporarily as the work required.

The total expenditure for park engineering for the year has been $3,489.42.

Respectfully submitted,

L. M. HASTINGS,
City Engineer.

REPORT OF THE SUPERINTENDENT OF PUBLIC BUILDINGS.

Office of the Superintendent of Public Buildings,
City Hall, Cambridge, December 1, 1896.

To the Honorable, the City Council of the City of Cambridge: —

Gentlemen: — In compliance with the requirements of Section 4, Chapter 13, of the City Ordinances, I have the honor as Superintendent of Public Buildings, of submitting to you the eleventh annual report of this department.

It contains a complete summary of building operations in our City, together with a detailed account of work done upon the various city buildings and such other information as may be of interest to those seeking or desiring information regarding the building operations in our City for the year 1896.

There have been completed, the past year, three public buildings as follows: —

Engine House for Steamer Three, located on the corner of Gore and Third Streets, Ward 3, completed and accepted on January 11, 1896.

Taylor School House, located on Charles and Vine Streets and Lowland Avenue, Ward 3, completed and accepted January 27, 1896.

Engine House for Steamer Four, at the corner of Blake Street and Massachusetts Avenue, completed and accepted October 21, 1896.

A Shooting Range for the local military companies has been constructed in Lexington, Mass., on land leased of Wm. H. Homans. The contract for the buildings for the Range was completed and accepted May 12, 1896. In order to prevent stray bullets from going outside of the limits of the Range, however, other construction was found necessary after it had been accepted, and contracts had to be made for building additional bulwarks. These contracts were completed and accepted November 1, 1896.

Other contracts for various sanitary changes in our school buildings have been made and the work completed, a detailed account of which will appear in the classification of buildings.

It is very desirable that future buildings for school and public purposes, especially buildings of more than two stories in height, should be more fire-proof in their construction. The best methods obtainable are in the end the most economical; while this may appear extravagant to those less familiar with the various methods of construction, when consideration is given to the amount annually expended for repairs on the cheaper grade of buildings in our City, in comparison with those of a higher grade, I am satisfied that it is the more economical.

City Hall.

In my report last year I referred to the unsatisfactory condition of heating and ventilating our City Hall and in the early part of the year, the City Council adopted an order, authorizing the Committee on Public Property to consider the matter and report thereon. As I was requested to assist the Committee in its investigation, it would seem proper to refer to the subject in this report. The entire building was then heated by one large fan and heater, and it was necessary to operate the whole system even when only one or two rooms required heating, which entailed nearly as much expense as when the whole building required it. In very cold weather in order to have the building comfortably warm, hot air had to be forced into the rooms at a temperature of from 100° to 125°. This rendered the air in the rooms unfit to breathe; naturally the rooms became overheated and it then became necessary to shut off the hot air. Then the ventilation was stopped.

Representatives of various concerns, who are engaged in supplying large buildings with systems for heating and ventilation, appeared before the Committee and explained their methods. All offered suggestions which they thought would afford relief.

The Committee gave the matter careful consideration and the details of the various methods in use were thoughtfully studied. An inspection of different plants installed in this and other States was also made.

On the Committee's recommendation, which was unanimously made to your body, Evans, Almirall & Company were given a contract to install their system of hot water heating which included the ventilation of the toilet rooms in the building.

The plant is now installed, and consists of a system of heating by direct radiation, the old system being used for supplying the various rooms with fresh air at a temperature of 68° to 70°. As the plant has been in operation but a few days, it would be presumptuous on my part to give it the credit which I think is its due, but from the opinions upon its merits which many have already expressed, its success would seem to be assured.

The cost of lighting the City Hall has received considerable attention the past year, and the Committee on Public Property has been considering the expediency of recommending that the City install a plant and do its own lighting. The Committee's report will soon be before your body. Its cost, in comparison with the present yearly outlay for lighting, is a strong argument in favor of its installation.

The flooring in the basement of the Hall should be removed the coming year. The timbers are entirely gone, owing to the fact that no provision was made for ventilation underneath the same, and on that account the timbers and under-floors have been food for dry rot. I would recommend that an appropriation be made the coming year, sufficiently large to allow for the substitution of tiling for the present flooring.

City Building, Central Square.

Necessary changes in the sanitary arrangements have caused the principal outlay on this building the past year. The changes were rendered necessary because of the seriousness of the conditions which existed. These were unknown to the department until its attention was called to a leak in a drain pipe in the basement.

This caused an investigation to be made, which resulted in disclosing the true sanitary condition existing in the building. Immediate steps were taken to remedy the defects.

The branch lines and fixtures were in a dilapidated condition, and it was deemed profitable and expedient to replace them with more modern makes. The work was carried on under considerable difficulty, not only because it was necessary to retain the system in temporary use, but also by reason of the amount of excavating that had to be done and number of brick walls that were encountered. The reconstructed system of drainage meets all sanitary requirements, and it is so arranged as to properly intercept any or all lines resulting from any further changes in the building.

The original system of drainage, I found to be constructed of Akron pipe and run absolutely without fall, punctured with numerous holes and connected with a brick cesspool. In replacing it with extra heavy cast-iron pipe, giving it the proper grade required by our ordinances and sanitary considerations. I found it necessary to raise and reconstruct the branch drains to a number of upright lines as well as the basement line of cells. While the cost exceeded my estimate, I feel that the results obtained fully warrant the increased expenditure.

Several changes in the building will have to be made this year in order to meet the requirements of its occupants, for which a liberal appropriation will be necessary. The changes required to allow of the Ambulance Wagon being placed in the room now used exclusively by the Police Patrol Wagon, will require an expenditure of a thousand dollars, while necessary repairs and improvements on the other portion of the building will require an outlay of another thousand dollars. The boilers for heating the building have been in use for twenty-four years, and in their present condition are liable to give out at any time, and I would recommend that an appropriation for replacing the old ones with new ones be made the coming year.

City Building, Brattle Square.

The only extensive improvement made in this building the past year, was the changing of the boilers used for heating.

In the early part of the year, Mr. E. B. Dale, who has charge of all the boilers of the city buildings in this department, reported that the boilers were in an unsafe condition. His report was supplemented by one from the State Inspector of Boilers, Mr. Hawley, who condemned them as unsafe to be run another year. In his opinion upon the subject to this department, Mr. Hawley recommended that boilers of a larger capacity be substituted, as the ones condemned were, in his opinion, too small to perform the work required of them. An advertisement inserted in the Cambridge Chronicle on June 20, 1896, calling for proposals for furnishing two horizontal tubular boilers, together with all material and labor necessary to set the same, resulted in awarding the contract to Mr. Henry McGahey for eleven hundred and ninety dollars.

The work was completed and accepted August 20, 1896, and the results have been most satisfactory. Other work in this building consisted of changes in the sanitaries in the Police Station, painting cells, corridors and general repairs throughout the building.

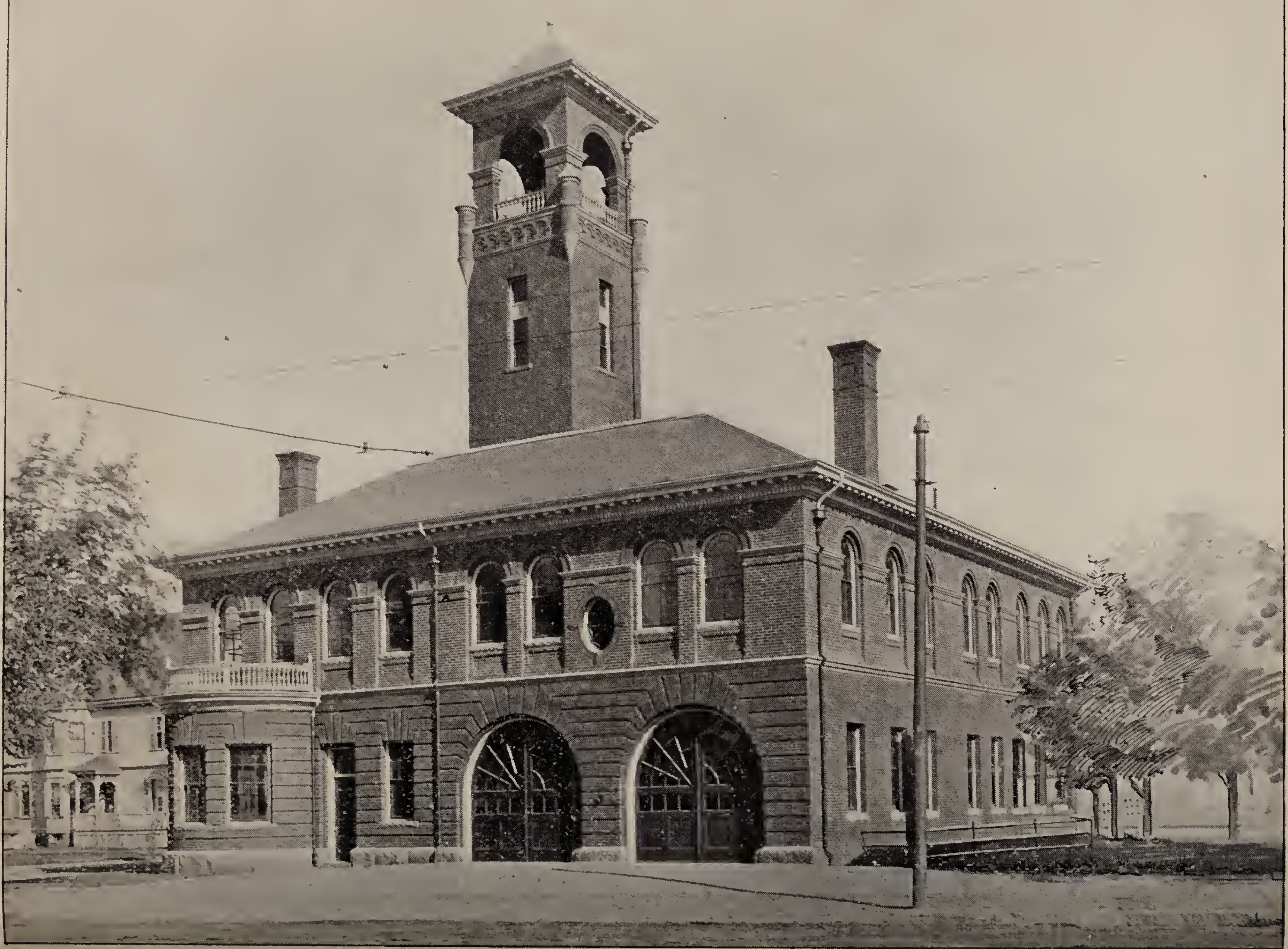
City Building, Ward Five.

Owing to the removal of Engine No. 4 into its new quarters, it became necessary for this building to have a janitor. Previous to the removal, Mr. Ricker, the Engineer, had charge of the building.

The crowded condition of the schools in this Ward made it necessary that the Ward Room should be used for school accommodations. The police occupy another portion of the building, but the quarters previously occupied by the fire department still remain unoccupied. This building in its present condition is not properly arranged to accommodate any department, but if it is to be used in the future, many needed improvements will be necessary. The absence of any prearranged plan for its occupancy will prevent me from making an estimate of changes to be made.

Bath House.

Many yearly repairs have to be made upon this building, caused mainly by the action of ice and water during the winter months. A new building will have to be substituted for the old one in the near future. The needed repairs the coming year will consist of



Engine House No. 4—Corner Massachusetts Avenue and Blake Street.

replacing a portion of the timbers, a part of the roof will have to be new and the interior and exterior of the building will have to be painted.

New Engine House, Ward Five.

This building, located at the corner of Massachusetts Avenue and Blake Street, was finished and accepted October 21st. It is a two-story, brick structure with red stone trimmings, containing 5,333 square feet of finished floor area and covering 4266 square feet of ground space. The appropriation for this building was $23,000.00 which was made June 18, 1895. The land upon which this building stands had been previously purchased by the City. The architect was Mr. Aaron H. Gould of Boston and the contractors Messrs. W. L. Clark & Co. of Boston.

This building ranks among the first of the state for its architectural effect, its accommodations and general convenience. Its location on the corner affords the finest opportunity for the arrangement of the rooms. The first story has a large apparatus room which affords accommodation for the Engine and Hose Wagon. Immediately in the rear of this room is the stable which is finished and arranged for six horses, and fitted with all the latest improvements.

In the rear and connected with the stable, are a work room, a box stall and harness room, and adjoining those are accommodations for a fuel wagon and its supplies. From Blake Street, you first enter into a vestibule ; leading from that is a hallway which opens into the apparatus room. To the right is a large commodious lounging room, finished and arranged in the most convenient manner. This room is also accessible from Massachusetts Avenue. In one corner of the room there is a fire-place which gives good ventilation for the room. There are also five small finished closets which afford ample accommodation for the clothing of the men.

The entire building is piped for gas and wired for electric lighting, being supplied with combination fixtures. At the left of the entrance on Blake Street is situated the lavatory. At the right of the lavatory door are stairs leading to the cellar. The building is heated by a large horizontal tubular boiler, supplied with latest improvements and of sufficient capacity to guarantee the proper heating of the building in the coldest of weather.

The hose wash and trough is located in the cellar and so arranged that the hose after being washed can be easily drawn to the top of the tower. The cellar is one of the finest in the department, being of ample depth and with sufficient open area to afford abundance of light. There is also in the cellar a finished room fitted with steam pipes and arranged as a drying room where clothing and blankets can be dried when occasion requires. The entire cellar bottom is covered with three inches of cement, making it very durable and dry.

On the second floor there are seven finished sleeping rooms, one large assembly hall, bath room, toilet room and a room containing ten closets with drawers for the accommodation of the firemen, giving to each man a separate locker. In the rear is a hay loft, but separated from the finished portion by an unbroken partition covered between studding and sheathing with fire-proof material, the same being placed between all rough and finished floors throughout the building. Two sliding poles running to the first floor are located in accessible places. A door opening into the hallway leads up to the tower, from whence an iron stairway leads to the top of the hose tower, which is about seventy-five feet high to the roof.

Immediately beneath the bell deck is a room containing the electric work and striking apparatus. The building is finished throughout with North Carolina pine in its natural state. The floors are of matched Georgia hard pine, and are not surpassed in any public building in our City. The lot is graded with one foot of loam, making it ready to receive the sodding in the spring. The driveways are paved from the street to the building on a grade of one half inch to one foot, making it an easy grade to drive in or out of the building.

New Latin School House.

The City Council of 1895, by an order approved November 7th of that year, made an appropriation of $2,500.00 for preliminary plans for a new Latin School House, to be erected upon the land owned by the City on Trowbridge and Ellery Streets, adjoining the High School House lot.

The order provided that the new building should cost a sum not exceeding $250,000.00, including the heating and ventilating and grading but exclusive of furnishings. The Superintendent of Public Buildings was authorized by the order to obtain plans by a competition and also authorized to offer the following premiums for the competition.

To the successful architect the sum of $1,000.00, the sum to be paid to him in case the building is not erected ; to the architect next in merit $500.00 ; to the third in merit $300.00 ; to the fourth in merit 200.00 ; to the fifth in merit $100.00. The order further provided that a Commission, consisting of His Honor the Mayor, the Superintendent of Public Buildings, and the Superintendent of Schools, should determine the conditions of the competition and decide the contest. Authority was given the Commission to employ an expert to assist in premiating the plans.

Fourteen sets of plans were received, ten coming from local architects and four from others, the latter being Messrs. Peabody & Stearns, Hartwell, Richardson & Driver, Longfellow, Alden & Harlow, and Wheelwright & Haven, all of Boston. Messrs. Wait & Cutter were invited to compete, but did not submit plans.

The Commission selected as experts to assist them in their duties Prof. Charles Howard Walker and Prof. F. W. Chandler from the Massachusetts Institute of Technology.

The plans were submitted to the Commission on the twentieth day of February, 1896. They bore no name or mark by which their authors could be known. Accompanying each plan was a sealed typewritten envelope addressed to the Mayor. Each envelope and the plan containing it were marked by the same letter for identification after the contest was decided. Both the Commission and the experts spent much time in the performance of their duties and a careful study of each design was made before the decision was rendered.

The following named architects were the successful competitors, in the order named : Hartwell, Richardson & Driver, E. Langford

Warren, Cram, Wentworth & Goodhue, William F. Chamberlin, J. A. Schweinfurth & Timothy Walsh.

The first named architects were awarded the contract for preparing the final drawings, and they are now ready to receive estimates.

This building, which is to stand north of the English High School, between Ellery Street on the east and Trowbridge Street on the west, is 201 feet in length on the two street fronts, and in extreme dimensions from east to west 175 feet 8 inches.

In general plan it is in the form of the letter H, the stem of the letter, which will be at right angles to Ellery Street, being broadened to contain class-rooms, Library, Principal's and Secretary's rooms, and in the third story the Assembly Hall. As the building will stand on the lot, its north and south axis and that of the English High School will lie in the same straight line. The fact that the two wings of this latter building will at an early day be extended north by the width of one school room has been taken into account. There will then exist between the two buildings a distance of 20 feet, to be closed by gates giving access to a large central area or court-yard.

North of the central section of the new building, or stem of the letter H, in the open space looking towards Cambridge Street is the gymnasium, 44 x 83 feet, starting at a level somewhat below that of the basement, and terminating with a very low roof under the sills of the first-story windows. The remainder of the basement is fully occupied by the boilers and fan room, the lunch rooms, toilet and dressing rooms, book storage, bicycle, bath and play rooms.

The principal entrance to the building is from Trowbridge Street, from which a corridor running east and west connects with laterals towards the north and south and with four liberal iron stairways near the points of junction of the main sections of the building. From Ellery Street are two entrances of ample width. Upon the right and left of the principal entrance are the teachers' and pupils' reception rooms, while eight class rooms with their recitation and coat rooms and certain toilet rooms occupy the remainder of this floor.

In the second story in the centre of the north side of the stem of the H is the library, a room 28 ft. x 56 ft., opening from which are the Principal's room, the Secretary's room, and connecting with the latter are two book rooms.

This story also contains large class and recitation rooms, physical laboratories, apparatus rooms, and a large physical lecture room, also a workshop, teachers' rooms, store rooms, toilet and hospital conveniences.

In the third story are the chemical laboratories, apparatus room, class and recitation rooms and coat rooms. The Assembly Hall, which occupies the entire area of the centre, is 60 ft. x 84 ft. and 23 ft. in height, with a beamed and panelled ceiling, a stage and ante-rooms opening off from the main corridors.

The Hall is so placed that the four main staircases are located one at each angle, and the eight or nine hundred people who may at any time be occupying this room can pass out upon one side or the other with equal freedom. Careful attention has been given to the problem of heating, air supply and ventilation, and no doubt is felt as to the complete success of the building in this very important respect.

In the arrangement and design of this building, the architects felt that one element of the problem was to so plan the new that when completed, while not being in any degree a copy of the old, it should completely harmonize with it, and that it should not be felt that either of the two buildings reacted unpleasantly upon the other, but that the two should form a thoroughly harmonious group. This added somewhat to difficulties already sufficiently numerous, but it is hoped the solution will prove in all respects satisfactory.

The contract for constructing this building will be placed early in the year.

Taylor School House.

The Taylor School House located on Charles Street, Lowland Avenue and Vine Street, Ward 3, was finished and accepted January 27, 1896. The architect was Mr. C. H. McClare of Cambridge and the contractors Messrs. Mack & Moore of Boston.

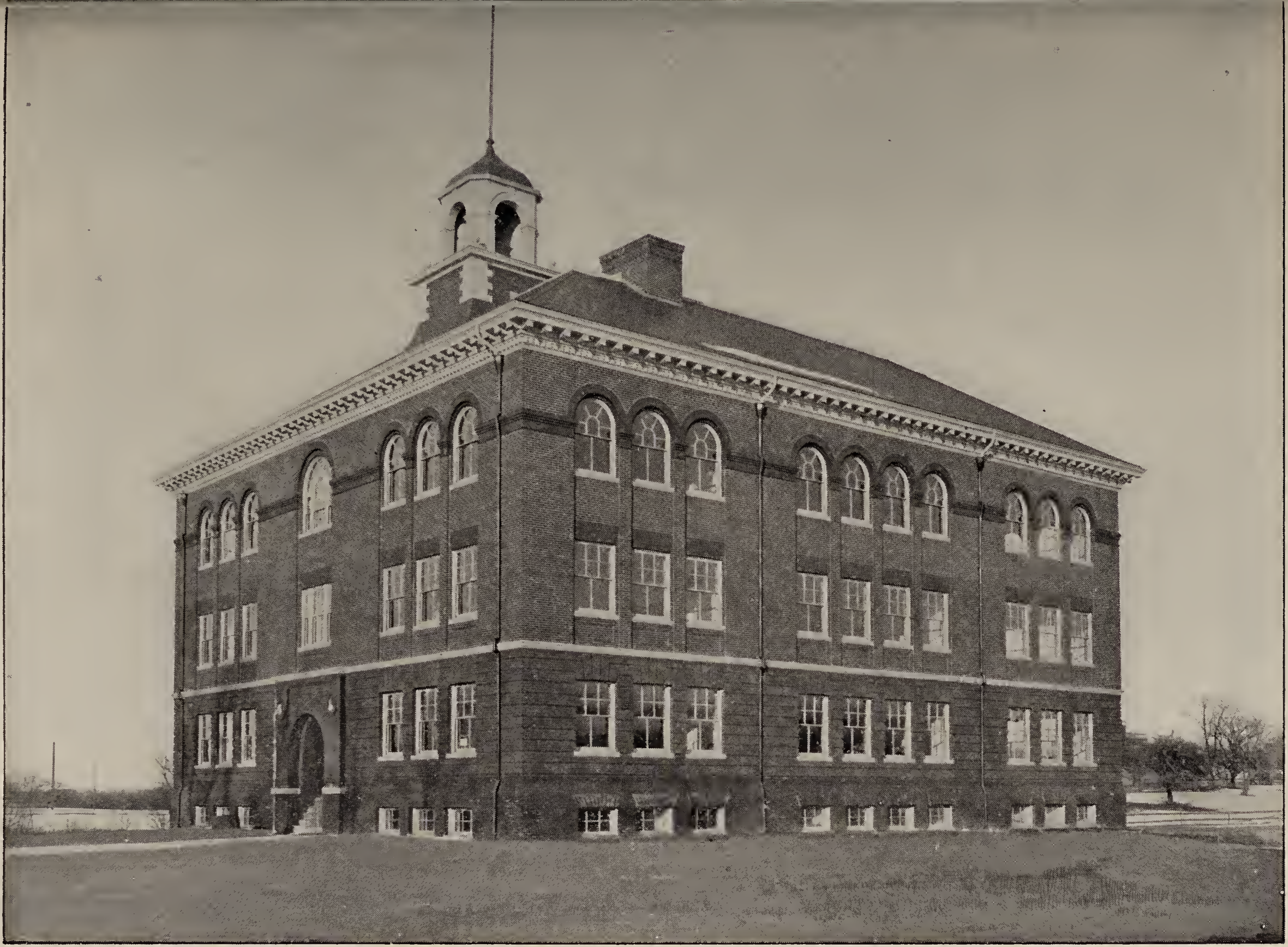
The appropriation was $36,000.00, the cost of the building $35,737.89. A description of this building was given in my last report. A portion of the third floor remains unfinished, and it will be necessary to appropriate a sum sufficient to cover the cost of finishing that portion which is at present needed for the accommodation of scholars in this section.

The unfinished portion of the building will afford accommodation for one hundred scholars. Arrangements for completing that portion should be made so that the work could be done during the summer vacation; then the teachers or scholars would not be inconvenienced. The lot remains in an unfinished condition as an effort is being made by the Committee on Public Property, to exchange a certain portion of the City's land for the lot adjoining the school house on Vine Street, which if the Committee is successful in accomplishing will afford ample space and light for the future enlargement of the building.

Arrangements should also be made so that the lot can be fenced in, for it would be useless to attempt to grade and sod it without making some provision to keep the public from using the land as a thoroughfare in passing from one street to another.

Russell School House, Larch Street.

An appropriation of $5,000.00 was made on December 28, 1894, for the purpose of purchasing a lot of land for school house purposes, in the vicinity of Larch Street. Early in the following spring, a lot of land, with a frontage of one hundred and twenty-five feet, running from Larch Street through to Hawthorn Avenue, and containing thirty-three thousand and seventy-three feet of land, costing $4,941.34 was secured. On July 3, 1895, an appropriation of $35,000.00 was made for the erection of a brick school house. Mr. Aaron H. Gould, architect, was engaged to prepare plans for a two-story building, and at their completion it was deemed advisable to make the building three stories in height, so as to allow of the finishing of a large hall in the third story. These changes and additions prevented the erection of the building for the sum appropriated, and on January 26, 1896, an additional sum of $5,000.00 was appropriated to meet the additional cost.



Russell Schoolhouse—Larch Street.

An advertisement inserted in the Cambridge Chronicle, February 15, 1896, resulted in the awarding of the contract for constructing the building to Messrs. John McDonald & Son of Cambridge, for the sum of $36,900.00. Work was begun in the early spring, and the building is now nearing completion.

The building is of brick with stone trimmings, with entrances on three sides. It contains ten finished school rooms, each containing nine hundred square feet of floor area, and two class rooms on both the first and second floors, each containing four hundred and fifty square feet of floor area. There are two teachers' rooms with the necessary accommodations, located on the first and third floors with a principal's room on the second floor. These rooms are situated in the immediate vicinity of the main stairway, thus affording easy access to all the rooms. The principal's room is connected with all the school rooms by electric bells and speaking tubes, and also with the janitor's room in the basement, making it possible for him to communicate with any part of the building without leaving his room.

On the first floor immediately adjoining the class rooms is a large room fitted with shelves for library purposes and there are also the same accommodations on the second floor. On the third floor there is finished a large hall of sufficient size to accommodate five hundred people. Connected with this is a large ante-room accessible from either stairway or the platform. Sliding doors on the first and second floors divide the entry ways so that in case of fire these doors can be closed, thus temporarily checking the fire and smoke from spreading through the building, and shutting off one stairway from the other, thus affording much safer means of egress for teachers and scholars.

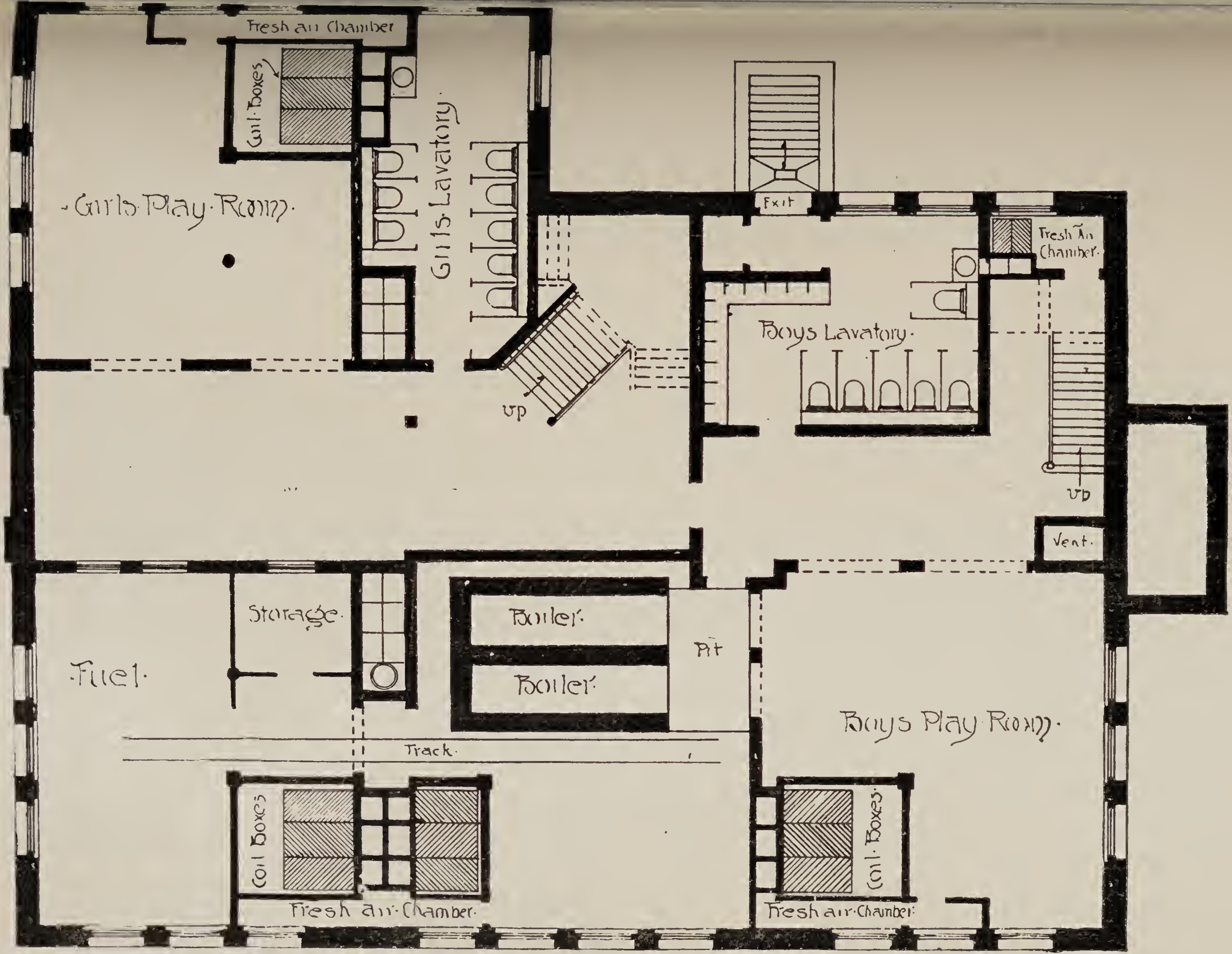
The heating and ventilation is the latest pattern, and it is expected, upon its completion, to be one of the finest in the State. The building will be heated by steam from two horizontal tubular boilers of fifty-four horse-power each. These boilers are so arranged as to insure the return of the water without the use of traps or pumps. The school rooms are so arranged as to be heated by indirect radiation, but provision has been made in several of them (those most exposed) whereby a system of direct radiation can be applied in extremely cold weather, should occasion require, but it is expected that the indirect system will be sufficient to heat it at any and all times. The main hall is heated by a combination of direct and indirect radiation. The sanitaries and smaller rooms will be heated by direct radiation only, the location of the various radiators being such as to insure the best results. The hallways are to be heated by radiators with two floor registers in the main hallway which can be used for foot warmers. During the warm weather, when the large boilers are not in use, the system of ventilation is operated by a small upright heater which is connected with the various ducts throughout the building and which can be operated independent of the larger ones. The hot air is carried to each room by galvanized iron ducts enclosed by brick walls, the heat entering the rooms eight feet above the level of the floor. The foul-air outlet from each room is located on a level with the floor line. Just inside of this foul-air duct is placed a sufficient amount of radiating surface to insure at all times a steady draft from the rooms; thereby a constant change of air is taking place at all times when the system is in operation.

The boys' and girls' toilet rooms are heated by direct radiation supplied by a coil of steam pipes placed near the ceiling, running on the cold side of the room. All air is removed from these rooms by passing through the bowls of the closets and under the urinals, and it is then conveyed by means of brick air chambers into the foul-air duct which extends to the top of the building. The closets and urinals will be of the first quality, individual porcelain bowls fitted in the best workmanlike manner with slate backing and floors. The back, sides, and floors of the urinals will be built wholly of slate.

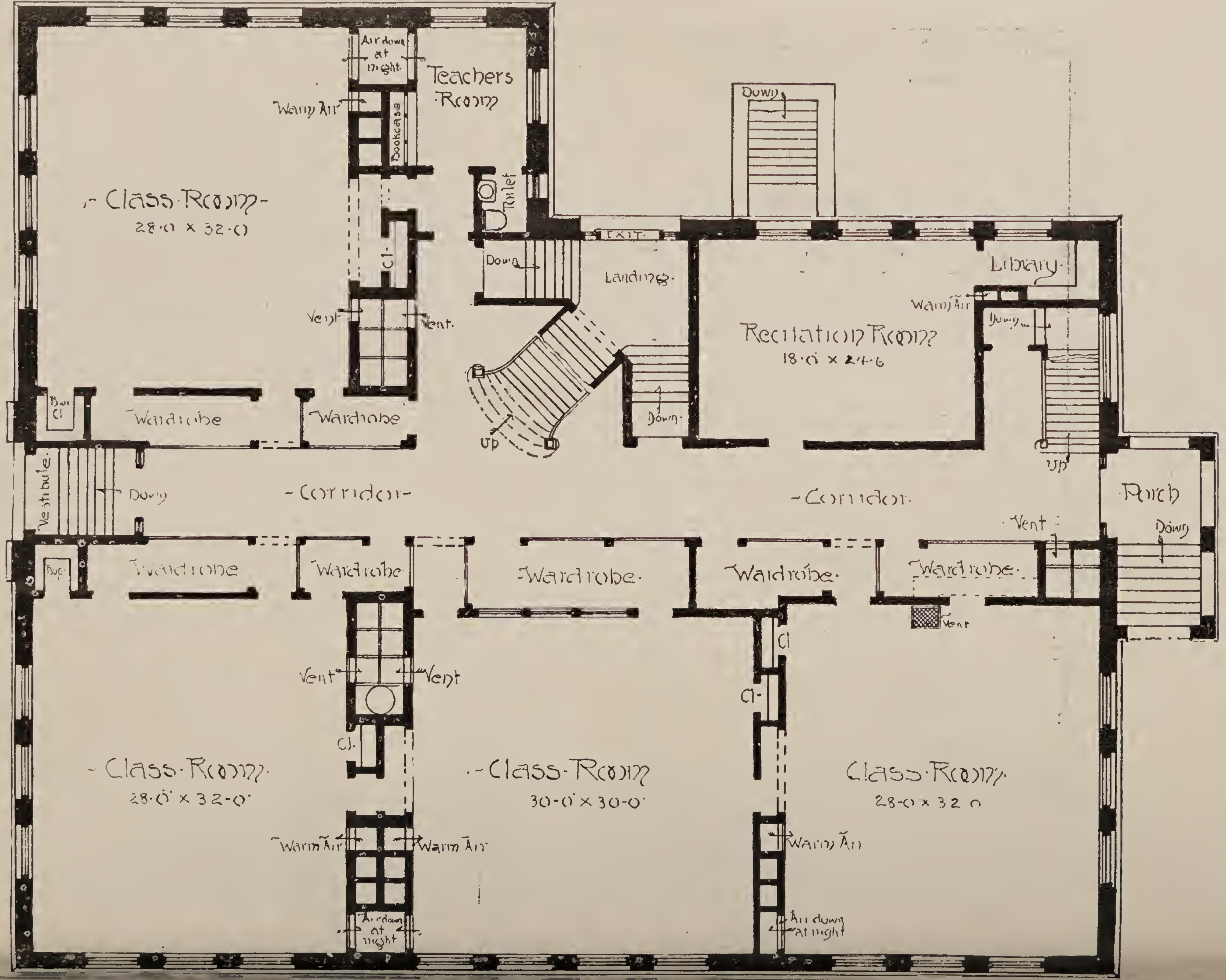
The interior finish of the building is of North Carolina pine, finished in the natural state with floors of Georgia hard pine rift. The stairs, rails, balusters and posts are of hard pine finished to match the other interior finish.

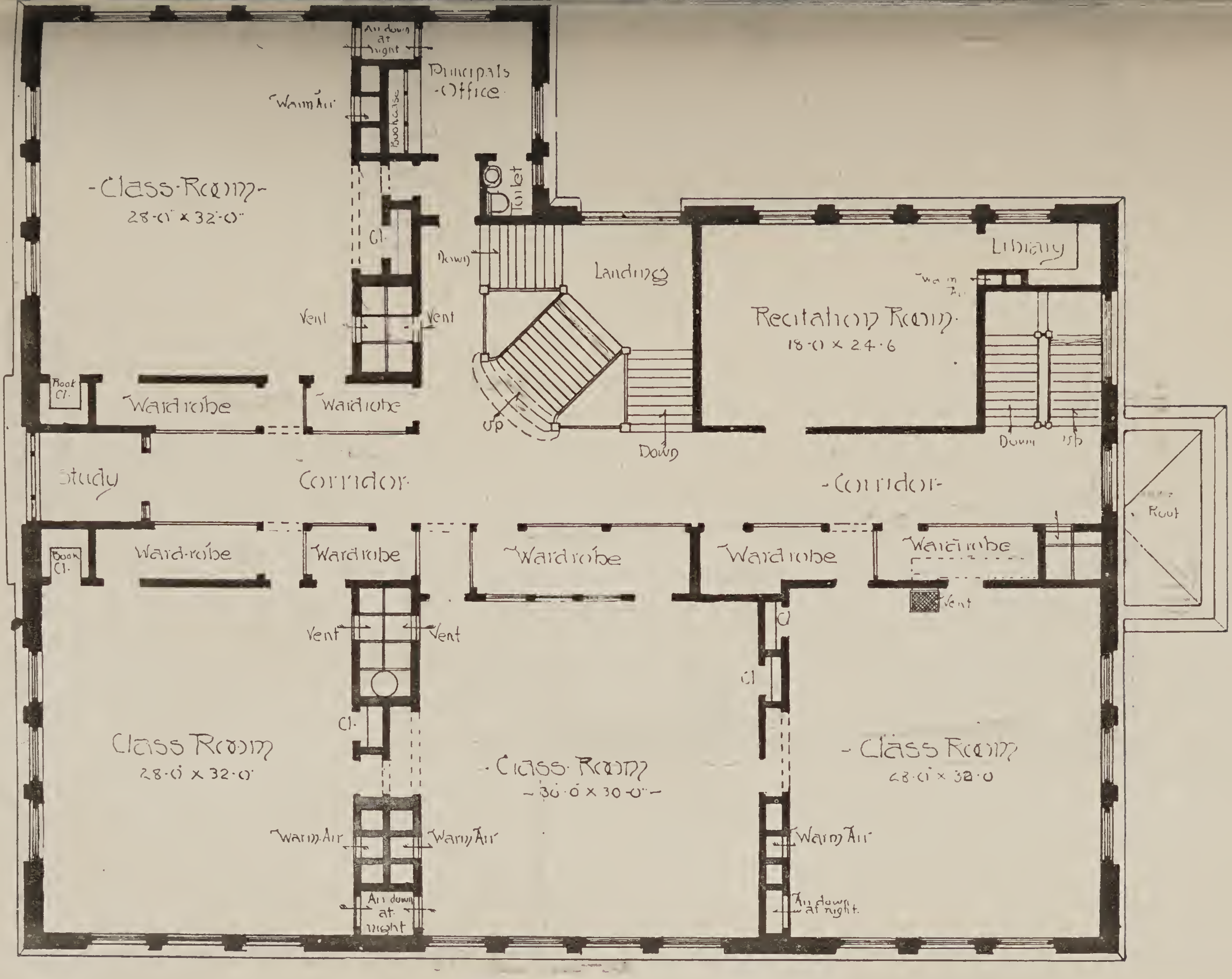
Sleeper School.

At the opening of the fall term of the schools, it was found that the crowded condition of the Sleeper School required additional

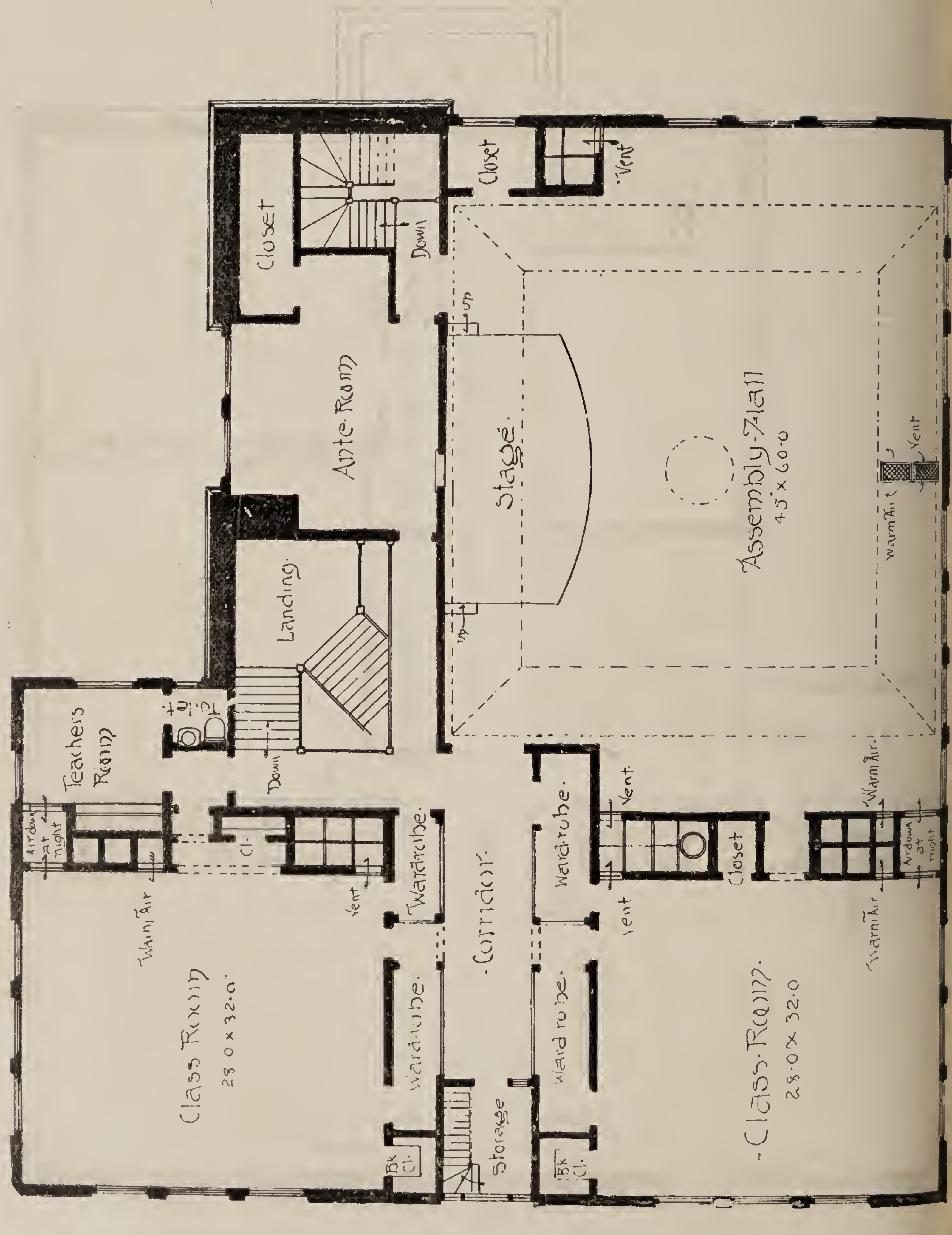

Fresh air Chamber
Coil Boxes
Girls Lavatory
Girls Play Room
Exit
Fresh Air Chamber
Boys Lavatory
Up
Up
Vent.
Storage
Fuel
Boiler
Boiler
Pit
Boys Play Room
Track
Coil Boxes
Fresh air Chamber
Coil Boxes
Fresh air Chamber

Basement Plan—Russell Schoolhouse.


Air down at night
Teachers Room
Warm Air
Bookcase
Class Room
28·0 x 32·0
Toilet
Cl.
Down
Exit
Landing
Down
Library
Warm Air
Recitation Room
18·0 x 24·6
Down
Vent
Vent
Up
Down
Bo. Cl.
Wardrobe
Wardrobe
Up
Vestibule
Down
Corridor
Corridor
Porch
Vent
Down
Bo. Cl.
Wardrobe
Wardrobe
Wardrobe
Wardrobe
Wardrobe
Vent
Cl.
Vent
Vent
Cl.
Cl.
Class Room
28·0 x 32·0
Class Room
30·0 x 30·0
Class Room
28·0 x 32·0
Warm Air
Warm Air
Warm Air
Air down at night
Air down at night


Class Room
28·0" x 32·0"
Warm Air
Air down at night
Principals Office
Bookcase
Toilet
Cl.
Down
Landing
Library
Warm Air
Recitation Room
18·0 x 24·6
Vent
Vent
Book Cl.
Wardrobe
Wardrobe
Up
Down
Down
Up
Study
Corridor
Corridor
Roof
Book Cl.
Ward-robe
Wardrobe
Wardrobe
Wardrobe
Wardrobe
Vent
Vent
Vent
Cl
Cl.
Class Room
28·0 x 32·0
Class Room
30·0 x 30·0
Class Room
28·0 x 32·0
Warm Air
Warm Air
Warm Air
Air down at night
Air down at night

Second Floor Plan—Russell Schoolhouse.


Closet
Down
Closet
Vent
Ante Room
Up
Stage
Up
Assembly Hall
45' x 60-0
Vent
Warm Air
Landing
Teacher's Room
Down
Air down at night
Cl.
Vent
Wardrobe
Warm Air
Corridor
Wardrobe
Vent
Closet
Vent
Warm Air
Air down at night
Warm Air
Class Room
28-0 x 32-0
Wardrobe
Wardrobe
Storage
Bk Cl.
Bk Cl.
Class Room
28-0 x 32-0

accommodations, and by request from the Superintendent of schools, a room in a building on the corner of Dudley and Cedar Streets, owned by Mr. John F. O'Brien, was engaged, at a rental of $200.00 per year, and has been fitted up and is now used for school purposes.

The crowded condition of this school was wholly unexpected. Those who had to do the planning of this building thought that it would give ample accommodations for several years to come. In order to properly provide for the probable increase of scholars in this section, it would seem desirable to seriously consider the expediency of taking early steps towards providing still further additional school accommodations for this section, as the completion of the Russell School will afford no relief, being located too far away.

Allston School.

This building was damaged by fire, probably of incendiary origin; it was discovered in the principal's room on the third floor, and through the efficient and persistent efforts of our fire department, was soon extinguished. The building and furnishings were damaged to the extent of several hundred dollars. Workmen were immediately set to work, and the sessions of the school were continued without interruption.

During the summer months the interior of this building received a thorough repairing; all the rooms were whitened and painted, the furniture smoothed, refilled and polished, and portions of the building provided with new curtains. All work performed was necessary in order to put the building in proper shape for school purposes. I am well satisfied with the results attained considering the amount expended. The increased cheerfulness of the appearance of the rooms must have its effect upon the scholars, for who can say that this is not as important a factor in their future lives as persistent teachings on the part of their instructors in less inviting quarters?

The Old Gannett School.

This building has received more than the usual amount of attention from this department the past year, on account of having been visited by a fire. It occurred on the evening of January 17, 1896, and was discovered bursting from the windows on the first story. The prompt arrival of the fire department and its efficient service saved the building from total destruction. The fire originated on the first floor by the stairway. In the basement are located two furnaces, set in brick work and thoroughly protected. When the janitor left the building at 5.30 o'clock, there was only a small fire in either of the furnaces, and I am satisfied that the fire was of incendiary origin. The entry and stairway were totally destroyed, and the greater part of the plastering either fell off or had to be taken off and replaced by new.

The use of this building for school purposes should be discontinued at an early date as it practically has no ventilation and only one stairway. Should a fire occur during school hours it is a serious question if the teachers and scholars could be gotten out safely as the stairway is located directly over the furnaces. In repairing that portion of the building damaged by fire, extra precaution was taken to use incombustible materials, particularly between the floors, in order to lessen the fire risk. If the building is to be continued in use for school purposes for any length of time, I strongly recommend that immediate steps be taken to provide better exits in case of fire.

Sanitary Changes in School Houses.

The gradual abolition of the vault and antiquated system in connection with our school buildings was continued this season by the introduction into four of our school houses of important sanitary improvements. The older systems have been replaced by appliances of more recent date, which have been put in position in the most improved manner, in accordance with plans and specifications prepared in this office. The architectural conditions necessitated extensive changes in order to properly locate and construct the sanitaries in the various buildings.

The following are the buildings where sanitary changes have been made the past year: — Thorndike, Willard, Stearns, and Sargent school houses.

The abandoned outbuildings at the Thorndike School consisted of a brick vault located in a brick structure in the rear of the school house without any direct communication with the main building. This structure was entirely removed, and seventeen individual closets in connection with an efficient urinal system were placed in the basement of the school building. Extensive excavations were made necessary in order to properly locate the new system. New stairway had to be constructed, and new windows had to be put in in order to properly light the basement. This school house is now provided with an entirely new drainage and supply system, and particular attention has been given to the subject of ventilation. All drains, vents, supplies and working parts connected with the closets are located in isolated compartments.

A much needed improvement was made in two school rooms by the removal of the old brick building, as additional light and air was afforded them.

The sanitary accommodations of the Willard School House were located in a brick building in the rear of the school house, and were the subject of much complaint from adjoining property owners. They consisted of a brick vault in which connections were made with the sewer. These fixtures together with building were entirely removed and individual closets substituted in the basement of the main building. The number and design are similar to those placed in the Thorndike School House, but the conditions were much more favorable for their construction.

The Stearns and Sargent School Houses were provided with iron closets located in wooden buildings in the yard, and the same objectionable features to them were as noticeable as in the other two cases. The work of reconstructing them in the basement was less difficult than in the other two buildings, but the design and quality of fixtures, together with the workmanship, fully equals those in the previously mentioned buildings. These schools are provided with eight and nine closets respectively and slate urinals of dimensions ample for their present and future needs. In the Sargent School House the entire system is new and is located in the basement. In the Stearns School House, a partial system of drainage and ventilation placed in position a short time previously, somewhat simplified the work. Owing to the contracted dimensions of the available portion of the basement, a small recitation room on the first floor was used for the girls' closets. The supervision of these changes was made by a daily inspection by Mr. Wm. A. Ford, Inspector of Plumbing.

The Boardman, Corlett, Felton, Otis and Wellington Schools, now have their sanitaries in the yard, and I recommend that an appropriation of $7,500 be made for the purpose of improving their sanitary conditions.

A very important matter connected with our School Houses was the appointment by the Mayor, of Mr. E. B. Dale, to supervise the heating systems in the various school buildings in our City, and already a perceptible change for the better is noted. A spirit of carelessness noticeable among some of the janitors has almost entirely disappeared and has given place to an increased interest in the general care and neatness of the buildings. With the continuance of the services of Mr. Dale, who is thoroughly qualified to fill the position, a general improvement must result, both in the saving of coal and a better supervision of the buildings. From his report to this department made December 1st, the following may be of interest to your body. He says :

" There are thirty-one horizontal tubular boilers and ninety-eight hot-air furnaces used to heat the various school houses and city buildings in this department, in which there was consumed the past year two thousand six hundred and eighty-eight tons of coal.

" The condition of some of the furnaces is not very satisfactory. A number are of the old style and of insufficient size, and in order to obtain satisfactory results they have to be forced beyond their capacity. The result is an increased cost for coal."

I am convinced that with such supervision as Mr. Dale can give to this department there will be a large saving to the City.

The number of tons of coal consumed the past year in the various school houses can be found in the tabulated expense account of school houses.

Inspection of Plumbing.

This branch of the department is under the charge of Mr. Wm. A. Ford. The amount of work performed has exceeded that of previous years. Not only has the number of permits issued been greater, but the work has been of a more important character, requiring greater care in its supervision and to prevent imperfect sanitary conditions existing in the construction of buildings.

The following are the statistics of the work of this department for the year ending November 30, 1896 : —

Number of permits issued	639
Number of inspections made	1,520
Violations of ordinance	6
Number of employers registered	2
Number of journeymen registered	7

The following annexed table gives the cost of new buildings completed the past two years together with the total square feet of finished floor area and their cost per square foot.

Table of New Buildings completed the past two years, with the total square feet of finished floor Area and their cost per square foot.

Date of Commencement.	Date of Completion.	Names.	Locations.	Descriptions.	Total Cost.	Cost per sq. ft. of finished Floor Area.	Total number sq. feet of finished Floor Area.
1894	1895	Sleeper School....	Corner Dudley and Cedar Streets..................	Brick, Two-story and basement........	$22,676 00	$2 42	*9,346
1894	1896	Taylor School.....	Charles Street, corner Lowland Avenue and Vine Street.............	Brick, with stone trimmings, three-story and basement...............	35,737 89	2 51	*14,207
1894	1895	Engine No. 7......	Main, corner Deacon Street	Brick, two-story and basement, tower 78 ft. high..	21,011 58	5 72	†3,667
1894	1896	Engine No. 3......	Third Street, corner Gore.	Brick, with stone trimmings, two-story and basement, tower 86 ft. high..	17,833 30	4 13	†4,313
1895	1896	Engine No. 4......	Massachusetts Avenue, corner Blake Street.........	Brick, with stone trimmings, two-story and basement, tower 84 ft. high..	22,998 04	4 31	†5,333

* Basement not reckoned.

† Basement and tower not reckoned.

Real Estate Belonging to the City.

SCHOOLS.

Buildings.	Location.	Feet of Land.	Valuation.
Agassiz	Sacramento St	19,689	$24,000 00
Allston	Boardman St	15,193	22,600 00
Boardman	Windsor St	10,018	16,500 00
Corlett	Holworthy St	10,000	4,000 00
Cushing	Cushing St	14,787	4,500 00
Dana	Centre St	14,317	6,300 00
Dunster	Concord Ave	10,000	6,000 00
Felton	Amory St	15,090	10,500 00
Gannett	Jefferson St	15,434	15,000 00
Gannet (old) Wellington	Columbia St	27,673	50,300 00
Gore	Gore St	9,900	29,000 00
Harvard	Inman St	20,494	52,000 00
High	Broadway	154,125	304,700 00
Holmes	Hilliard St	11,182	10,500 00
Lassell	Charles St	10,000	10,500 00
Latin	Fayette St	37,828	55,000 00
Lee St	Lee St	10,100	15,000 00
Lowell	Lowell St	12,033	9,500 00
Morse	Brookline St	25,650	80,000 00
Otis	Otis St	8,270	16,000 00
Parker	Broadway	12,329	22,000 00
Peabody	Linnæan St	21,813	35,000 00
Putnam	Fourth St	11,900	68,300 00
Quincy	Mason St	8,469	15,000 00
Reed	Reed St	12,000	5,200 06
Riverside	Putnam Ave	11,198	8,000 00
Russell	Larch St	33,073	
Sargent	Broadway	9,995	7,000 00
Shepard	Massachusetts Ave	14,755	27,000 00
Sleeper	Dudley St	21,284	33,000 00
Stearns	Harvard St	10,050	8,000 00
Tarbell	Grigg St	19,500	12,000 00
Taylor	Charles St	20,000	42 000 00
Thorndike	Thorndike St	10,027	34,000 00
Washington	Brattle St	14,951	37,000 00
Webster	Upton St	25,839	59,000 00
Willard	Niagara St	20,079	25,000 00
Wyman	Rindge Ave	14,347	9,500 00
CITY BUILDINGS.			
Ward One	Brattle Sq	16,153	76,000 00
Ward Four	Central Sq	13,028	60,500 00
City Hall	Massachusetts Ave	47,878	272,000 00
Station Four	Massachusetts Ave	6,516	10,000 00
Station Three	Fourth St	4,220	22,100 00
Engine House No. 2	Massachusetts Ave	10,000	34,000 00
" " No. 3	Third St	10,100	23,000 00
" " No. 4	Massachusetts Ave	9,532	29,000 00
" " No. 5	Inman Sq	6,000	15,000 00
" " No. 6	River St	4,994	14,500 00
" " No. 7	Main St	9,400	19,300 00
Hook and Ladder No. 2	Portland St	11,931	15,000 00
Chemical No. 2	Lexington Ave	15,262	14,500 00

School Houses.

Schools.	Fuel.	Light.	Repairs.	Supplies.	Extra Labor.	Janitors.	Totals.
Agassiz.........	$251 24	$12 12	$182 17	$40 13		$624 00	$1,109 66
Allston.........	308 80	123 24	1,477 80	79 01		377 00	2,365 85
Boardman......	253 08	70 76	171 49	54 90		523 00	1,073 23
Corlett..........	49 72		40 34			234 00	324 06
Cushing	66 69		37 68	10 30		234 00	348 67
Dana............	92 75	1 25	106 05	85		268 60	469 50
Dunster........	171 51		244 66	17 15		494 00	927 32
Felton..........	155 40	12 88	424 24	26 55		268 60	887 67
Gannett.........	218 00	18 25	74 96	65 90		468 00	845 11
Gannett (Old)..		28 38	389 71	52 45	$12 45	494 00	976 99
Gore............	338 27	21 75	237 77	32 35		728 00	1,358 14
Harvard........	882 30	48 25	570 30	49 48	3 00	1,035 15	2,588 48
High............	1,647 01	42 51	406 86	35 01	408 39	1,800 24 806 00	5,146 02
Holmes.........	92 80	62	297 54	25		351 00	742 21
Lassell	152 40		63 42	2 32		364 00	582 14
Latin............	452 30	13 99	162 50	138 82		850 20	1,617 81
Lee St..........	226 54	4 49	50 32	35	20 50	728 00	1,030 20
Lowell..........	172 86	1 39	117 17	2 85		312 00	606 27
Morse..........	792 40	2 87	641 81	21 36		1,040 00	2,498 44
Otis.............	175 60	7 25	146 14	25 13		624 00	978 12
Parker..........	159 30	11 24	251 01			520 00	941 55
Peabody........	353 99	3 63	88 68	80 52		728 00	1,254 82
Putnam.........	796 53	55 12	86 36	10 33	14 00	1,040 00	2,002 34
Quincy..........	109 45	75	201 19	93		312 00	624 32
Reed............	103 23		57 76	14 22		364 00	539 21
Riverside.......	150 53		74 97	10 20		338 00	573 70
Sargent.........	134 64	4 88	51 10	20 40		377 00	588 02
Shepard	316 55	19 50	204 71	54 10		724 00	1,318 86
Sleeper.........	451 58	6 65	93 73	14 25		624 00	1,190 21
Stearns.........	134 20	65 39	58 67	6 12		268 80	533 18
Tarbell...	163 25		197 36	7 81		338 00	706 42
Taylor..........	669 22		411 08	75 03	18 50	554 00	1,727 83
Thorndike......	328 00	23 63	444 03	399 55	10 00	728 00	1,933 21
Washington	375 08	27 49	362 13	96 83		585 00	1,446 53
Webster........	605 60	267 49	811 80	31 98		936 00	2,652 87
Wellington.....	910 10	16 75	826 01	46 65	3 00	494 00	2,296 51
Willard.........	361 65	3 00	196 36	101 40		700 00	1,362 41
Wyman.........	198 20		100 51	175 70		416 00	890 41
All Schools.....	11 08		22 10	728 88	724 48		1,486 54
	$12,831 85	$915 52	$10,382 49	$2,530 06	$1,214 32	$22,670 59	$50,544 83

AMOUNT OF COAL CONSUMED IN THE VARIOUS SCHOOL HOUSES.

	Tons.
Agassiz	50
Allston	70
Boardman	57
Corlett	10
Cushing	15
Dana	25
Dunster	35
Felton	35
Gannett	50
Gannett (old)	30
Gore	70
Harvard	95
High	374
Holmes	35
Lassell	25
Latin	85
Lee St.	25
Lowell	25
Morse	175
Otis	40
Amount carried forward	1,326
Amount brought forward	1,326
Parker	80
Peabody	95
Putnam	175
Quincy	25
Reed	25
Riverside	32
Sargent	30
Shepard	70
Sleeper	80
Stearns	30
Tarbell	35
Taylor	100
Thorndike	80
Washington	80
Webster	140
Wellington	170
Willard	75
Wyman	40
	2,688

SCHOOL HOUSE, WARD ONE.

Appropriation	$39,960 89
Expended	24,225 78
Balance	$15,735 11

SCHOOL HOUSE, WARD THREE.

Appropriation	$17,292 49
Expended	17,283 32
Balance	$9 17

SANITARY ARRANGEMENTS, SCHOOLS.

Appropriation	$8,000 00
Expended	7,992 79
Balance	$7 21

Care and Repair of City Buildings.

CITY HALL.

For fuel	$1,194 96
Electric lighting	1467 66
Gas	126 65
Repairs	1,282 13
Supplies	2,182 69
Janitor	1,200 00
Engineer	1,263 52
Fireman	722 00
Watchman	728 00
Extra labor	2,395 36
Total	$12,562 97

WARD ONE BUILDING, BRATTLE SQUARE.

For fuel	$898 60
Gas	740 88
Lighting tower clock	120 00
Repairs	1,895 69
Supplies	43 58
Janitor	1,395 16
Total	$5,093 91

WARD FOUR BUILDING, CENTRAL SQUARE.

For fuel	403 55
Electric lighting	140 00
Gas	249 90
Repairs	1,233 96
Supplies	40 24
Janitor	1,395 16
Extra labor	99 00
Total	$3,561 81

POLICE DEPARTMENT.

Police Station 1, Brattle Square	$98 70
Police Station 2, Central Square	177 82
Police Station 3, Fourth Street	1,140 80
Total	$1,417 32

FIRE DEPARTMENT.

Engine House No. 1, Brattle Square	$29 59
Engine House No. 2, Massachusetts Ave.	318 66
Engine House No. 3, Gore corner Third Street	290 57
Engine House No. 4, Massachusetts Ave.	197 01
Engine House No. 5, Inman Square	28 57
Engine House No. 6, River Street	131 46
Engine House No. 7, Main Street	206 03
Hook and Ladder No. 2, Portland Street	160 90
Chemical House No. 2, Lexington Ave.	89 27
Total	$1,452 06
Miscellaneous	1,255 03

ENGINE HOUSE, WARD THREE.

Appropriation	$9,463 90
Expended	9,463 90

ENGINE HOUSE, WARD FIVE.

Appropriation	$22,666 62
Expended	22,664 66
Balance	1 96

At the present time the city carries no insurance on its buildings against the ravages of the elements. It seems desirable that the City Council should consider some method of insurance in the near future against loss by fire, whereby buildings could be repaired or rebuilt as the case might be; where a fund would be available to replace the same, without seriously crippling the department by using its funds, which were appropriated for the ordinary running expenses, as has been the case in the past two years.

The city owns some magnificent buildings, notably its City Hall, Library, School Houses and Engine Houses, and while the danger is small, still if a fire should occur and damage be done, the city would be obliged to stand the entire loss and pay for the same out of an appropriation designed for other purposes.

I would suggest that a system of self insurance be inaugurated. One per cent of the cost of a new building could be deposited with the Sinking Fund Commissioners, and this, in my opinion, with the interest accruing, would be sufficient to amply reimburse the city from any loss to a building from fire. While the yearly provision would be comparatively small, it would in time amount to the entire cost of the building.

I would further suggest that all the money so accruing above a certain per cent of the original cost, be placed to the credit of a building fund which could be used as occasion required towards the erection of other public buildings, and in this manner the entire cost of a new structure would not fall upon any one year.

The building ordinance has received a great deal of attention the past year, and in order to rectify informalities and to meet the changing conditions, the Committee on Ordinances has from time to time recommended amendments which, I am pleased to state, have been favorably acted upon by the City Council. It is gratifying to be able to state that, at the present time, a corrected and revised copy of the ordinance is in the hands of the printer, and I am in hopes of seeing it presented to your Board for consideration, the present month. The constant changes in the material used and the mode of construction of buildings, requires constant watchfulness on the part of this department, as it is an established fact that contractors seek to obtain personal advantage, rather than bear loyalty to established laws. Conditions vary, and to keep pace with new methods of construction, amendments to the ordinance are required. Unremitting and persistent effort is necessary to secure and enforce the requirements of our ordinance.

The criticism which attended the establishment of fire limits in our city, which was general among a certain class of investors a year ago, has materially decreased, and some of the then most bitter opponents now concede that the Committee acted wisely ; and the Committee, with those who assisted, have the consciousness of knowing that they legislated with but one purpose in mind, i. e., the better protection of life and property.

The future growth of our city, its prosperity and its relations to other cities, require wise and proper construction of its buildings, with prudent forethought for the future protection of those who must live in and near them.

No builder or investor has a right to jeopardize life or property. The building ordinance is not ordained to interfere with the liberty or enterprise of individuals or corporations, but to encourage and stimulate a safe and healthy growth throughout the city.

The success of all building enterprise depends entirely upon the safeguards afforded to its occupants. No law can be framed without seemingly to entail hardship upon some one, but the chief aim in the framing of the building ordinance has been to protect the many rather than to favor a few.

One of the important matters connected with this department is the proper care of our city buildings; for it must be conceded that with the limited time at the disposal of this office for supervision, much dependence must be placed in those who have been appointed as custodians of our public buildings. Their success depends entirely upon the interest shown in their duties, and a general inspection made at any time would easily demonstrate the ones fitted for their work. It is gratifying to acknowledge that, during the past year, not a single complaint has been filed in my office of any neglect or discourteous act on their part towards the public. It will not be discourteous to other janitors at this time to make special mention of one of their number, who is a worthy veteran of our late war, and who has also by reason of his twenty-five years service as custodian of our City Hall, become a veteran janitor, and who has by his untiring courtesy won the respect and confidence of the public. The flattering compliments paid him by visitors to our hall, for its neatness and tidy appearance, are of daily occurrence, and it must be a satisfaction to him to know that a faithful public servant's labors are appreciated. I refer to Mr. Charles A. Gay, for whom I predict another faithful quarter of a century service as custodian of our City Hall.

I wish at this time to express my gratitude to my subordinates who have been loyal to the requirements of the department and untiring in their efforts to enforce the ordinance in an impartial manner, and who have by their courteous deportment brought dignity and respect to the department. When the importance and the responsibilities of the department are considered, its duties for the proper condition of life and property, its daily considerations become apparent. None can realize this more fully than those engaged in the work of this department. Its success and value to the public can only be assured when subordinates are true and loyal to the duties in which they are engaged.

In conclusion, I desire to say that it is a pleasure to recall the cordial relations that have existed between the various Committees and this department, and especially the Committee on Public Property, the members of which have been ever ready to assist and advise in all matters pertaining to the work; and to his Honor the Mayor, I desire to express my sincere appreciation of the valuable assistance rendered me during the past year.

Respectfully submitted,

WM. H. GRAY,

Superintendent of Public Buildings.

REPORT OF THE INSPECTOR OF BUILDINGS.

Office of the Inspector of Buildings,
City Hall, Cambridge, Dec. 1, 1896.

To the Honorable the City Council of the City of Cambridge :—

Gentlemen : — I have the honor to submit the eleventh annual report relating to the business of this department, together with such statistics as will prove of interest to the public.

The building operations in our city have exceeded that of previous years notwithstanding the depressed condition of the trade generally. With the many changes made in the building ordinance, it is gratifying to note that the builders, as a rule, have been prompt to comply with its requirements.

Following is a table showing the number and character of alterations ordered where the Inspector's services have been required in the interest of public safety and the proper enforcement of the building ordinance.

Inspections on private buildings	2973
Inspections on city buildings	713
Number of chimneys inspected	676
Inspection of buildings to be moved	19
Woodwork too near flues	53
Chimneys ordered rebuilt	7
Buildings in dangerous condition	53
Fire checks ordered	217
Cellar wall ordered rebuilt	4
Violation of building ordinance	83
Dangerous foundations	14
Defective conductors and gutters	12
Plastering chimneys before inspection	29
Building without a permit	11
Building too near line of lot	13
Buildings rendered unsafe by reason of fire	9
Number of complaints filed with court	6
Number of convictions	4
Attempt to raise wooden buildings within fire limits	1

This case was taken to the Superior Court by the City Solicitor and a permanent injunction granted.

The following table shows the number of permits granted in each ward for buildings, etc., and the use for which they were intended : —

BUILDINGS.	WARDS.				
	1.	2.	3.	4.	5.
Additions	20	31	7	31	30
Alterations and repairs	19	22	13	13	10
Carriage houses	7	6	3	6	7
Chimneys		2	1	1	2
Dwellings	50	82	7	48	110
Dwellings and stores	1	1	2	6	
Factories		5	3	2	1
Foundations	5	16	3	11	4
Heating apparatus	3	3	1	1	1
Stables	3	3	2	1	10
Stores	8	2	6	8	3
Storehouses	3	5	3	6	5
Miscellaneous	11	4		7	4
Total	130	182	51	141	187

Of the foregoing permits 658 were issued for wooden structures and 33 for brick and stone, making a total of 691.

Those of brick and stone are as follows :—

Dormitories	2
Dwellings	9
Dwellings and stores	2
Engine House	1
Factories	5
Home	1

School House	1
Shelter House	1
Stable	1
Stores	7
Storehouses	2
Y. M. C. A.	1
Total	33

Cost of Buildings for the Year 1896.

MONTHS.	WARD 1.		WARD 2.		WARD 3.		WARD 4.		WARD 5.		TOTALS.	
	New.	Repairs.	New.	Repairs.	New.	Repairs.	New.	Repairs.	New.	Repairs.	New.	Repairs.
December .	$181,950	$2,500	$88,825	$1,750	$10,500	$8,330	$33,500	$935	$29,825	$200	$344,600	$13,715
January .	4,000	3,400	3,625	185	14,000	2,035	13,100		2,750	5,330	37,475	10,950
February .	7,000	450	5,500	4,300			26,400	100		2,550	38,900	7,400
March . .	55,500	500	25,500	13,640		600	20,200	2,900	36,625	9,050	137,825	26,690
April . .	83,400	5,760	70,250	3,295	2,500	2,600	50,500	13,900	55,150	5,700	261,800	31,255
May . . .	64,500	1,550	31,600	3,880	8,300	4,200	61,600	7,660	71,450	300	237,450	17,590
June . . .	87,200	1,900	65,600	19,880	1,000	805	19,900	2,600	42,800	850	216,500	26,035
July . . .	16,950	13,580	50,700	5,225		3,450	3,225	5,130	9,975	3,895	80,850	31,280
August . .	15,500	19,125	43,900	3,505		2,440	31,200	3,490	18,000	2,225	108,600	30,785
September .	18,000	6,200	49,800	2,875	6,500	500	95,500	5,460	20,320	600	190,120	15,635
October . .	38,900	3,800	27,800	925		275	27,500	905	27,500	4,050	121,700	9,955
November .	38,660	4,300	27,500	4,440	49,700	1,190	20,500	6,130	65,900	570	202,260	16,630
Totals .	$611,560	$63,065	$490,600	$63,900	$92,500	$26,425	$403,125	$49,210	$380,295	$35,320	$1,978,080	$237,920

Number of permits granted for each month during the years 1895 and 1896:—

	1895.	1896.
December	31	57
January	32	22
February	29	16
March	101	40
April	87	91
May	76	91
June	48	82
July	84	60
August	51	67
September	49	35
October	44	66
November	55	64
Totals	687	691

Respectfully submitted,

WM. H. GRAY,

Inspector of Buildings.

REPORT OF SUPERINTENDENT OF LAMPS.

Office of the Superintendent of Lamps,
Cambridge, December 1, 1896.

To the Honorable the City Council: —

I have the honor to submit herewith the annual report of the Lamp Department for the year ending November 30, 1896.

The amount appropriated	$71,000 00
Transferred to incidental expenses	3,500 00
Balance unexpended	174 69

The principal amounts expended are as follows: —

For arc lighting	$48,386 70
Incandescent	7,211 37
Gas consumed	6,242 75
Care of lamps	3,640 00
Chimneys	47 65
Oil	121 83
Matches	3 80
Carriage hire	24 00

Expenses for electric lighting have been as followed: —

Arcs.

Amount of bills rendered	$48,561 40
Amount of deduction for outages	169 11
Amount of deduction for deficit in current	5 49
Amount expended for arcs	$48,386 70

Incandescents.

Amount of bills rendered	$7,239 37
Amount of deduction for outages	28 00
Amount expended for incandescents	$7,211 37

The number of hours in which one or more lamps have failed to burn is: —

	Hours.
For arc lamps	4,227¾
For incandescents	2,800
Total outages	7,027¾
The largest number of arc lamps in use in any one day	471
The largest number of incandescents in use in any one day	266

The expense of gas lighting has been as follows: —

Amount expended for gas	$6,242 75
Amount expended for care of lamps	3,360 88
Cost of gas per lamp	21 52
Cost of care per lamp	11 63
Cost of care per day	03+

Average number of gas lamps burned per day during the year, 290. These have burned 1,055,729 hours, consuming 5,278,645 cubic feet of gas.

The averege length of time each gas and oil lamp has burned per day is 9.94+ hours.

The expense of lighting with oil has been as follows: —

Amount expended for oil	$121 83
Amount expended for chimneys	47 65
Amount expended for matches	3 80
Amount expended for care of lamps	279 12
Cost of chimneys per lamp	1 98
Cost of care per lamp	11 63

Average number of lamps burned per day during the year, 24. Eleven hundred and eighty-one gallons of oil have been consumed, averaging 49 gallons per lamp, at an average of 7¾ cents per gallon.

Whole number of lamps in use November 30, 1896: —

Arcs	471
Incandescents	266
Gas	287
Oil	24
Total	1,048

There are now fourteen petitions, against forty-two at the same time last year, on the files of the Lamp Committee all of which will receive due consideration. The Committee on Lamps together with your Superintendent have made, the past year, two distinct trips about the City, to visit the localities for which lamps were asked. In the majority of cases there was urgent need of lights, while in others a change in method of illumination was desired, as many petitioners asked to have electric lights substituted for gas or oil. These latter petitions, in the opinion of your Superintendent, should not be granted, unless for other urgent reasons, until arrangements are made to discontinue enough gas or oil lamps to allow the City to dismiss one or more lamplighters.

Municipal Lighting.

The statute law of Massachusetts requires that a city which wishes to establish a municipal electric lighting plant, shall pass a resolution to that effect for two consecutive years in its city council with the approval of the Mayor, or passage over his veto, and a final ratification of the same by the citizens at the polls. It must, moreover, purchase the plant of the local electric company, at a fair market value for the purpose of its use, should that company elect to sell.

Upon the passage of the first resolution looking toward the establishment of a municipal electric lighting plant in Cambridge, the Electric Light Company of this City voted to sell its plant and gave notice to that effect. This municipal lighting question has been before three consecutive city governments, but as the first resolution was found to be defective, it was discarded and another passed in the two succeeding years. The final vote upon the latter was passed last December, too late however to get on the ballot at the municipal election in that month. A special election was therefore necessitated, which was held on April 28, 1896. The resolution voted upon was as follows: —

"That it is expedient for the City of Cambridge to exercise the authority conferred upon cities under the provisions of Chapter 370 of the Acts of the year 1891, and Acts in amendment thereof and in addition thereto, and thereby to establish and maintain, within the limits of said City of Cambridge, one or more electric plants for the manufacture or distribution of electricity for furnishing light for municipal use and for the use of such of the inhabitants of the City of Cambridge as may require and pay for the same as in said acts as provided."

The result of the election was as follows: — Total vote cast 3018, yes 1180, no 1829, blank 7. This vote was 28.5 per cent of the vote cast in the previous December election for municipal officers. The defeat of this resolution, in the opinion of your superintendent, was due primarily to two causes, first the exorbitant price asked for the present electric light plant, namely, $475,200, and secondly to the general apathy of the public towards such an undertaking. This latter was clearly shown by the small vote cast.

Electric Lights.

The five-year contract with the Cambridge Electric Light Company expired on the first of June and a new contract was made with that Company until December 1, 1896. The City can make, hereafter, only a yearly contract, as the present City Charter forbids the making of a contract for which there has been no appropriation provided.

The new contract calls for a reduction of $15 per year in the price of the arc lamps, but the price of the incandescent lamps remains the same. The increase in the number of arcs installed this year has been 23 and in the number of incandescents 33. This figure will be materially increased during the coming month, as 19 arcs and 32 incandescents have been recently ordered in and will shortly be lighted. This will give an increase on January 1st next, over that of January 1, 1896 of 48 arcs and 65 incandescents and a decrease of 16 gas lamps and one oil lamp.

The reduction secured this year of $15 in arc lights represents a saving of $7,065 on the 471 arcs now installed.

The following is the form of contract as made with the Cambridge Electric Light Co.:

THIS AGREEMENT, made this twenty-ninth day of June, A. D. 1896, by and between the Cambridge Electric Light Company, a corporation duly established by law and having its usual place of business in the City of Cambridge, and hereinafter called "the Company," of the first part, and the City of Cambridge, a municipal corporation in the State of Massachusetts, and hereinafter called "the City," of the second part, WITNESSETH:

First. That the Company agrees to furnish such number of electric arc lights as the City shall from time to time demand, and to keep them lighted continuously between dusk and dawn daily, according to time schedules to be furnished from time to time by the City, but the total number of schedule hours per year shall not exceed thirty-nine hundred (3900), provided, however, the number of hours on dark mornings and evenings shall be lengthened over and above schedule hours as may be deemed necessary by the Superintendent of Lamps, without extra compensation. The electric current furnished shall never be less than six and eight-tenths (6.8) amperes, and the potential fall to each lamp shall be not less than forty-five (45) volts, being an electrical energy of 306 watts per lamp with a nominal candle power of twelve hundred (1200); with necessary poles, fixtures and attachments in the streets, squares and public places where such lights may in future be located from time to time and designated to the Company by the Superintendent of Lamps of the City. The lamps are to be operated continuously each and every night during the continuance of this agreement. The carbons are to be of the best quality American solid carbons now in use and best adapted to street lighting, and of size adapted to the current used, and to burn uniformly and give a clear and steady light. The globes shall be of clear glass unless otherwise ordered by said Superintendent, and shall be free from lettering and be of the best quality and proper shape to avoid casting rings or streaks of light and shadow. All globes shall be thoroughly brushed inside and outside daily, so that they will obstruct the light as little as possible; shall be washed as frequently as necessary, and any globes that may become broken shall immediately be replaced by sound ones.

Second. The Company covenants and agrees to indemnify and save the City harmless from any and all claims for damages by reason of any infringements of patent rights, in the use of lamps, lights, wires, poles, machinery or appliances connected therewith, and by reason and on account of all decrees, judgments and orders of any Court arising therefrom; and also to indemnify and save the City harmless from any and all suits, costs and claims for damages for injury to persons and property caused by the imperfect construction, operation, maintenance or repair of its said lights, wires, poles, lamps, machinery and appliances, or from the negligent use, operation, or maintenance thereof.

Third. The City agrees that it will use not less than four hundred (400) of said arc lamps, and if the said Company shall well and faithfully perform the conditions of this contract in all its parts, first satisfying said City that no liens or other claims for labor done or materials furnished in the aforesaid work exist, and that no proceedings either in law or equity have been begun against said City, either on account of any infringement of patent rights or for any other wrongful, or alleged wrongful, negligent use, operation or maintenance of or injury by said electric lamps, lights, wires, poles, machinery and appliances, then the City will pay the Company for each light so supplied as aforesaid, and used by the City, the sum of one hundred dollars for the use thereof every year, and the said price paid shall be in full payment for any and all expenses attending the care, maintenance and use of such lights whether the said lights shall be of twelve hundred (1200) candle power or more; but it is hereby UNDERSTOOD AND AGREED that if through accident or from any other cause the said lamps or any portion of them shall fail to be so lighted according to the time schedules hereinbefore mentioned, upon any night or nights or portion of a night or nights during the continuance of this agreement, then for each lamp that shall so fail to be lighted there shall be deducted from the sum to be paid the sum of four cents for every hour it remains unlighted, and in that proportion for any part of an hour or hours, PROVIDED, HOWEVER, if said lights or any portion of them fail to be so lighted or kept lighted by reason of any order of said City or of its agents or employees, then in such case no deduction shall be made, and after twenty-four hours' notice, the Superintendent of Lamps or other proper officer or agent of said City may at the expense of said Company put the same in order. Any amount that shall be due from the Company under the provisions of this clause of the contract shall be deducted out of any money that may be payable to it by the City. In case the actual current supplied to any light or lights from any of the lamps shall be less than that called for herein, payment shall only be made for the actual current as ascertained as hereinafter stated, the amount to be paid to be based *pro rata* upon the amount which would be paid were the current equal to that required hereby, but this shall not imply a right to continue to furnish lights under this contract at a reduced current.

Fourth. It is hereby FURTHER UNDERSTOOD AND AGREED by the parties hereto, that the Company during the continuance of this contract shall furnish in such places as are from time to time designated, incandescent lamps and lights of nominal forty (40) candle power known as arc series lamps. The electric current for the incandescent lamps shall never be less than six and eight-tenths (6.8) amperes, and the fall of potential between terminals of each incandescent lamp shall never be less than twenty and six-tenths (20.6) volts, being an electrical energy of one hundred and forty (140) watts. The incandescent lamps to be furnished under the terms and conditions of this agreement as far as applicable, except that the sum to be paid for such incandescent lamps shall be tthirty dollars ($30.00) per annum, and the sum to be deducted while unlighted as above specified shall be one cent per hour.

Fifth. The said Company agrees that should any of the lamps fail to burn uniformly and give a clear and steady light to the satisfaction of the Superintendent of Lamps, the Company will at its own expense replace them with others satisfactory to said Superintendent.

Sixth. The City hereby RESERVES the right, which reservation is agreed to by the Company, that under any order of the City Council the Superintendent of Lamps may order an increase of the number of lights or a change in any location of the same from time to time, the actual cost of any such change in location of lamps set and in use, to be paid by the City, but any such increase to be made at the expense of the Company, and no lights to be paid for except they are actually lighted.

Seventh. Subject to the conditions of this contract the City AGREES to pay to the Company charges as aforesaid for the use of said lights, in monthly instalments on the days fixed by the City for monthly payment of its bills, and also any sums due the Company under section six of this contract. The City shall furnish to the Company with each payment a certificate of the outages deducted.

Eighth. It is hereby UNDERSTOOD AND AGREED that at the expiration of the time of this agreement or any time thereafter, the Company shall at its own expense, if notified so to do by the City, remove the said lights, lamps and the poles to which the same are attached other than poles which have been located for the suspension of their lines of wires, all such to be done at the expense of the Company.

Ninth. For the purpose of making tests of currents and of examining the lamps, wires, poles, apparatus and appliances with the view of learning whether the Company is complying with the terms of this agreement, it is further understood and agreed that at all proper times the City, by such person or persons as the Superintendent of Lamps may authorize, shall have access to all said lamps, wires, poles, apparatus and appliances in the City, and also to the plant of the Company, and shall have the further privilege at any time and at all times of attaching in any of the circuits, at such points as they may select, one or more ammeters or other measuring instruments, and to maintain the same during its pleasure, and to have the further right to remove at any time one or more lamps for the purpose of testing the candle power of said lamp or lamps. Such tests as are made by the Superintendent of Lamps or any person or persons authorized by him, are to be used as the basis of payment by the City of Cambridge as hereinbefore mentioned.

Tenth. In consideration of this contract and of the above promises of said City, the Company agrees to furnish electric arc lights of the same candle power for the lighting of the Public Buildings, Parks, Public Grounds and Bridges when requested so to do by the departments having charge of said Buildings, Parks, Public Grounds and Bridges at the same rates and on the same conditions provided for in this contract.

This contract shall continue to December 1st, 1896, and from month to month thereafter for a period of two months at the option of said City. The City shall have the further right at its option for a period of five (5) years from December 1st, 1896, and from year to year during that period, to renew this contract upon the same terms and conditions for periods of one year from December 1st of any of said years, provided said option is made by the City within the period of two months from the first of December then next preceding.

IN WITNESS WHEREOF the said parties have hereunto set their hands and seals, the day and year first before written, by their officers duly authorized.

CAMBRIDGE ELECTRIC LIGHT COMPANY, { Seal }
Josiah Q. Bennett,
President.

CITY OF CAMBRIDGE,
By Charles F. Hopewell, { Seal }
Supt. of Lamps.

The form of this contract is approved in triplicate.
G. A. A. PEVEY,
City Solicitor.

Executive Department,
July 2, 1896.
Approved.
WM. A. BANCROFT,
Mayor.
Mayor's Records, Vol. 5, page 74.

Gas Lights.

The contract with tbe Cambridge Gas Light Company expired November 15, 1894, and since that time the City has had no contract with that Company. The price paid by the City however has remained the same as under the contract, namely, $1.20 per thousand cubic feet. On July first, this year, the Cambridge Gas Light Company reduced the price of gas to all consumers from $1.30 net to $1.15. This reduction gives the City a gain of five cents per thousand cubic feet over the price as formerly paid, but no reduction over any other consumer. There have been nine gas lamps discontinued during the past year.

Oil Lights.

The City has at present twenty-four oil lights or one less than last year. The only thing that can be said in their favor is that they are cheap. I recommend, however, that all oil lamps be discontinued during the coming year and incandescents be substituted.

To the Chairman and members of the Lamp Committee, I wish to extend my thanks for the courtesy shown me the past year.

Respectfully submitted,

CHARLES F. HOPEWELL,
Superintendent of Lamps.

REPORT OF THE INSPECTOR OF WIRES.

Office of the Inspector of Wires,
Cambridge, December 1, 1896.

To the Honorable the City Council: —

I have the honor to submit herewith the annual report of the department for the Inspection of Wires. The reports upon the Fire Alarm and Police Telegraph Systems are included, as the Inspector of Wires, by virtue of his office, is superintendent of these two branches of service.

Inspection of Electric Wires within Buildings.

There have been made, during the past year, 133 inspections of the electric light and power wiring in buildings in this City. The number of visits was 206; this increase of visits over inspections is due to the fact that changes were ordered to be made in a large number of cases and extra visits were necessary to see that the changes ordered were complied with.

All new work has been inspected and when additions have been made to old work, then both the old and new were inspected. In several cases old work was ordered to be changed so as to comply with the requirements of this department. A record of all inspections is now kept in the office of this department and indexed; this will be valuable in time to come as many buildings are now inspected in course of erection, where the wiring is concealed when the building is finished. It may be several years before the electric fixtures are added and current is desired in such a building and then the record becomes valuable, as showing how many lights could be safely added and that the concealed work was properly done.

The rules and requirements adopted by this department are those issued by the National Board of Fire Underwriters. The rules enforced the past year were adopted by the above mentioned Board in January, 1896.

The total capacity of 16 candle power lamps installed during the year was 4,601, the total rated horse power of motors was 233. The average number of lamps lighted is, of course, a small percentage of the number installed. In connection with this matter I might state that there have been no fires caused by electric wires in any building in this City during the past year. This speaks well for the class of work that is now being done. The Cambridge Electric Light Company also deserves credit for the help rendered to this department in obtaining good wiring.

Electric Wiring of Public Buildings.

This department has wired this year the new Engine House, No. 4, and the Larch Street School House. While the work is done by us, yet we receive compensation from the Public Building Department for the same; also on order of the Superintendent of Public Buildings, we have attended to the care and repair of electric bells, batteries, and in fact all other electrical work required in the City Buildings. This arrangement has undoubtedly saved the City several hundred dollars.

The electrical sign on the tower of City Hall at the time of the City's fiftieth anniversary celebration was designed and built under the direction of this department. It consisted of the following words and letters:—"1846—50 YEARS A CITY—1896"—arranged in four rows, one above the other, on the front and the two sides of the tower. The letters were four feet in height and contained a total of 945 incandescent lamps. The lamps were lighted on May 4th, (except one side lighted two weeks later) and burned every night until June 2nd. The total expense was $885.70.

City Hall Telephones.

There are located in the City Hall at present seven telephones, only five of these include unlimited Boston service. The total rental for the last fiscal year was $1140. There are also five other offices which have absolute need of telephone service, if these five had unlimited Boston service their cost would be $900, or a total of $2040. per year for all. What I would offer as a suggestion is that the City establish a sub-central telephone station in City Hall, with two trunk lines to the telephone station. If this was done a person could call the City Hall and talk with any head of department or *vice versa ;* moreover all heads of departments could talk with each other. This arrangement would save much valuable time both for citizens and the City officials. This is the method adopted in the State House at Boston and many other places. The total cost of such an arrangement including pay of operator would be not over $1600 per annum.

Pole Lines.

During the past year the Garden Street and Concord Avenue pole line of the New England Telephone and Telegraph Company has been rebuilt from Massachusetts Avenue to Huron Avenue. This pole line is also now used by the West End Street Railway Company for the support of their trolley wire and for that reason the iron poles formerly located on the north side of these streets have been removed.

The Western Avenue pole line of the New England Telephone and Telegraph Company has also been rebuilt this year, so as to permit the West End Street Railway Company to equip, without unnecessary poles, their Western Avenue car line with electric cars.

The Boylston Street pole line of the New England Telephone and Telegraph Company has, at the request of the Inspector, been rebuilt and transferred to the western side of that street. The Telephone Company also consents to carry the Western Union, Electric Light and West End Street Railway Company's wires on the same poles. This arrangement obviates the difficulty of several pole lines and its location on the west side of the street, permits a clear view into Harvard Square.

The Webster Avenue pole line of the West End Street Railway Company has been removed, as their tracks have been taken up on that avenue. This Company has also laid return underground wires from their power house through Short, Bridge, Gore, Third and Cambridge Streets to Prospect Street. There are six 500,000 circular mils wires as far as Portland Street and five beyond that to the corner of Cambridge and Prospect Streets. This large amount of return ground wires will materially lessen the electrolytic action on the gas and water mains and has also allowed the ground wires on the poles to be cut over to feeder wires, thereby furnishing increased feeder capacity without actual increase in number of overhead wires.

During the past year the companies, especially the Telephone Company, have been dilatory about removing their old poles in cases where they have rebuilt their lines. It seems unjust that citizens should be compelled to have extra poles in front of their buildings any longer than absolutely necessary; I therefore recommend that hereafter the order of the City Council granting such changes, contain a time limit clause stating the time within which the complete work is to be finished, including the removal of the abandoned pole line.

The pole lines on some of the main streets of this City have reached their safe wire carrying capacity, and to further increase the number of wires on such poles would be injudicious. These poles with their heavy and numerous wires are a constant menace to life and property, even although the same are carefully inspected. They also add a material danger to the putting out of a fire in their neighborhood. There is but one remedy, and that is to place the wires underground; the method advocated by the City for accomplishing this end is to have all the companies occupy one conduit system under municipal control. With this end in view, the City petitioned the General Court in 1893 and 1894 for necessary legislation to permit the City to build, own and operate a conduit system. A bill granting such a privilege was introduced, but defeated in the legislature of 1894, through the opposition of the Telephone Company, although it was agreeable to both the West End Street Railway Company and the Cambridge Electric Light Company. I would suggest that the City petition the General Court again this year for the necessary legislation.

Fire Alarm.

The fire alarm system of the City centres at present in Brattle Square, in a building poorly arranged and constructed for such a use, and with the miscellaneous uses to which the same is put, it is a continual menace to the fire alarm system. Last year, I recommended that an emergency table be equipped and stored where it could be readily available in case the City lost its central station. I am now convinced, however, that the same would be a makeshift for a fire alarm system of a City of this size, and the only proper way to overcome such a difficulty would be to build a new central station. A location near the City Hall would be, in my opinion, the model location. A Committee has already been appointed to consider the advisibility of such a central station in connection with a fire department headquarters.

During the past year we have experienced considerable difficulty from losing our current which runs our motor generators. These motor generators furnish the main source of current for our fire alarm system, and they receive the current to drive them over a special circuit, direct from the Cambridge Electric Light Company. This difficulty could be overcome by using storage batteries and would be cheaper as we could then dispense with our gravity cells, which are now maintained for emergency use and for telephoning over our circuits when making a test.

Three new keyless boxes, numbered 58, 139, and 162 respectively, have been bought and installed during the year. In addition to these there have been two private boxes located, the numbers of which are 412 and 417. There are still a large number of places where boxes should be installed and I recommend that six new boxes be located during the coming year, also that ten keyless doors be purchased and added to those fire alarm boxes where keys are not readily accessible.

During the past year, a twelve circuit register has been added to the central station equipment. This was designed and built by the United States Fire and Police Telegraph Company, according to the ideas of the Superintendent. Since its installation, last March, it has given perfect satisfaction and has supplied a long felt want.

Pursuant to an order of the City Council, passed March 3, 1896, a bell with striker was purchased and installed in the tower of Engine House No. 2, Lafayette Square. There has also been placed a bell and striker on Engine House No. 4, on Massachusetts Avenue. This bell was bought by the City this year, but the striker was taken from the tower of the North Cambridge Baptist Church, where it was previously located. As the bell is now exposed and not boxed in as was the North Cambridge Baptist Church bell, it should and is giving much better service. Moreover it is much more accessible to this department. There are at present ten bells and three steam whistles located in this City.

An additional tapper circuit has been run during the past year, this will allow more call men to have tappers in their houses and also reduce the number of instruments on our formerly overloaded Cambridgeport circuit. The telephone circuit formerly terminating at Engine House No. 5, has been continued to the central station. By this means we have been enabled to divide our telephone circuits running to East Cambridge and Cambridgeport, into two circuits respectively. This will give an improved telephone service and in cases of trouble on the telephone line, will destroy communication with only half the number of engine houses, in the eastern part of the City as it would formerly.

Engine House No. 4, on Massachusetts Avenue has been connected with Engine House No. 4, in Somerville by a special circuit. This arrangement gives the Cambridge fire alarm to the Somerville Engine Company or *vice versa*, and enables these two companies, by mutual agreement of the Fire Departments of these two cities, to respond to certain boxes across the line, thereby giving better fire protection without extra expense.

The fire and police line wires have been carefully gone over and covered wire substituted for bare in many cases, also a general cutting over and straightening out of the line wires has been done.

In addition to this about seven miles of new circuit wires have been run for a telephone loop from Engine House, No. 5, and for our new tapper circuit. The City wires are in a better condition than ever before in its history.

The past year has been a record year for the number of alarms sounded. The total number of bell alarms sent out was 212, they were divided as follows: 202 first, 1 second, 1 third and 3 general alarms. There were in addition 5 still alarms transmitted through the central station.

The *personnel* of the department has changed very much during the past year, due to three resignations. Mr. Edward Backus resigned to become Inspector of Wires of Somerville and with him went his son Fred Backus. Mr. Oscar L. Whitney also left to seek other employment. They were all conscientious and painstaking and their loss has been felt by this department. In their places have been engaged Mr. Thos. S. Shaw, Mr. Arthur Jewell, and Mr. Francis Axtman, all of whom are becoming rapidly accustomed to the work required of them.

Police Signal System.

This department lacks several spare instruments that would be of great benefit to the police signal system. We need a spare box movement for a Municipal box, a spare time stamp and several spare bells for the police boxes. A Municipal register is needed at Station 2, as the present register is not properly arranged for that table. Several new patrol boxes are required and should be installed during the coming year.

The City received a very favorable offer for equipping Station 2 table with pole changers and the boxes with reverse current bells, as recommended in my report of last year. As the Superintendent did not have the necessary authority in that matter, he could not accept the offer much to his regret, and the head of the department in whose power it lay, felt disinclined to do so.

The financial statement of this department for the past fiscal year will be found in the Auditor's report.

In closing, I wish to express my thanks to his Honor the Mayor and members of the City Council for the consideration shown this department during the past year.

Respectfully submitted,

CHARLES F. HOPEWELL,
Inspector of Wires.

REPORT OF THE TRUSTEES OF THE CAMBRIDGE PUBLIC LIBRARY.

To the Honorable the City Council: —

From the annual report of the librarian, which accompanies this, it appears that 4,163 volumes have been added to the library the last year and 1,814 have been discarded and not yet replaced, making the total number now 51,679 volumes. In addition 33 volumes have been bought during the year from the income of the invested funds belonging to the board of trustees. Six thousand dollars additional insurance has been placed on the books and other contents of the building.

A great deal has been done toward completing the sets of bound periodicals, in preparing the files of newspapers for binding, and in arranging the heterogeneous mass of government publications and exchanging duplicates for volumes which were missing or for other series. The newspapers have been re-catalogued, and the files, bound and unbound, are placed on the shelves in the basement where they can be consulted conveniently without removal to the reading-room. Most of the books relating to American history and genealogy, which are in the room over the children's reading-room, have also been re-catalogued and are now accessible.

The re-classification and re-cataloguing have made great progress, especially in fiction, and the trustees expect to be able to print a finding-list of books of fiction during the coming year, to be followed by other special lists. The monthly bulletin of recent accessions was issued through the year, although the arrangement for its publication had to be changed, so that some expense was incurred; it is useful for all who wish to know what the library has lately acquired, and, until finding-lists are printed, is indispensable for those who get books through the delivery stations, for the teachers, and for all to whom the public card catalogue at the central library is not accessible. A second case of sixty trays for the card catalogue had to be purchased in October on account of the great increase in the number of cards.

The circulation of books from the central library was somewhat smaller than the year before, principally during the winter and spring; the difference is accounted for by the librarian in his report. The users of the Huron avenue delivery station are mostly those who in other seasons draw books directly from the central library but on account of stormy weather and bad walking find it inconvenient to do so in winter. The patrons of the newly established station at 2530 Massachusetts avenue are almost entirely persons who have never used the library at all. Another station near the railroad crossing in East Cambridge will accommodate many who cannot easily get books now.

Small collections of books are deposited with three different organizations in Cambridgeport, who are responsible for them and by whom the books are loaned directly on such conditions as each association deems best. The books are changed every few weeks and seem to be read by many who enjoy the privilege of going to the shelves to make their selection. The trustees will be glad to consider requests from other associations for similar deposits of books in other parts of the city. Undoubtedly it would be well to have at least three branch libraries with reading-rooms supplied with some newspapers and periodicals and a few selected books, and the trustees hope for this; but at present they think that loans of books, as just described, and a few more delivery stations will accommodate more people at a smaller expense.

The school delivery has grown steadily; there has been a marked increase in the number of books used at the Putnam, Corlett, and Peabody schools, and a decrease at the Shepard, Morse, Webster, and Wellington; some of the classes at the Sleeper were transferred from the Shepard last year, and the Morse and Webster have good, though small libraries.

The work of preparing for the local and school deliveries is becoming too large to be done conveniently in its present location, and the number of children who frequent their special reading-room is so great as to overcrowd it at certain times; on this account the trustees are beginning to think of the necessity in a few years for an addition to the stack, which may enlarge the shelf room for books and also accommodate the assistants who are in charge of the local and school work and the preparation of the books for use; the space thus gained in the children's reading-room could be used to good advantage for the children.

The reading-room is now open until nine o'clock during the week and from two to six on Sunday; it is proposed to keep it open until ten every evening, a change that must promote the pleasure and profit of the general readers as well as students.

Applicants for appointment in the library were examined this year for the first time, and the result has been so satisfactory that the practice will no doubt be maintained. Miss Winifred B. Smith resigned last spring to accept a higher position at the Brookline Public Library. She had been at this library since September, 1891, and while Cambridge lost an efficient worker, her call elsewhere was a proof of her skill and attainments. Miss Harriet D. Lochman has been added to the staff, and Miss Haida N. Parker was appointed to fill the vacancy caused by Miss Smith's resignation. If the reading-room should be opened longer, as suggested above, it will be necessary to employ another assistant for evening duty only.

Last spring the attention of the City Council was called to the unseemly condition of the sidewalks about the library, and it was asked that they should be paved or in some way made proper for the use of the numerous visitors in winter. As nothing has been done, the trustees must repeat their request. It is hoped that the Park Commissioners will be able this year to effect some changes in the laying out of the grounds and approaches to the building which will add to their convenience and beauty.

In closing, the trustees wish to express their satisfaction with the efficiency of the librarian and his assistants and the improvements they have made in many details.

WILLIAM TAGGARD PIPER,

In behalf of the Trustees.

REPORT OF THE LIBRARIAN.

To the Trustees of the Cambridge Public Library:—

Gentlemen: In presenting my report for the year ending in November, 1896, let me first call your attention to the growth of the library. More than four thousand volumes have been added, while, as an offset, nearly nineteen hundred have been discarded. The latter number includes not only the books worn out during the year, but also a great many volumes which were condemned several years ago, and which have now been finally deducted, either because it is impossible to replace them or because they are no longer desirable. More than ninety per cent. of the total number of condemned volumes were fiction, and a very considerable proportion consisted of duplicates which are no longer needed.

Our list of bound periodicals has been materially strengthened. We have completed during the year our sets of the Contemporary Review, Macmillan's Magazine, Nature, and Hamerton's Portfolio, as well as several smaller sets of periodicals no longer published. In the purchase of periodicals, particular attention should of course be paid to those which appear in Poole's Index, and it should be one of the aims of the library to acquire nearly all the so-called "Poole sets."

When I came to examine the government publications which were stored in the basement, I found several hundred duplicate volumes which were totally useless and which occupied valuable space. These have been sent to the superintendent of documents in Washington, and we have received from him many books in exchange. Among them are the Memoirs of the U. S. Geological Survey and a large number of volumes of the Congressional Record which were lacking from our set. There are still many gaps in this set to be filled, due to the fact that the library has not always found it possible to obtain the bound volumes.

Catalogue.

On account of the rapid growth of the card catalogue, it has recently become necessary to purchase a duplicate of the case of trays bought about a year ago. It would be an accommodation to the many people who use the catalogue to add another table for consultation, and I think it will be possible to do this without encroaching seriously on the limited space devoted to the newspaper racks.

In the work of re-cataloguing the library, particular attention has been paid to fiction, during the last two or three months. I think the re-numbering of the books in this department should be completed as soon as possible and that we should then print a catalogue of fiction alone, something the library has never had and of which it has always felt the need. A catalogue of this kind will be of great service to our local delivery stations and to many people who cannot come to the library to use the card catalogue. It will be advisable, when the classification of the entire library is farther advanced, to issue from time to time class lists of the library's resources on special subjects. And of such lists, one of fiction would naturally be the first, since more people are interested in this than in any other. I think the preparation of the fiction catalogue may be completed during the coming year, and I accordingly recommend that you consider the question of its publication in forming your estimates of our financial needs.

The pamphlets of the library, which have hitherto been practically inaccessible, have now been partially classified, and the work will be continued as rapidly as we can find time for it. Some of the United States government publications have been entirely re-catalogued, and although it was not feasible to locate all of them in their proper places in the stack, on account of insufficient room, they have been arranged elsewhere so that they may be readily found.

Extension of The Stack.

The work of cataloguing the government publications and of bringing the sets up to date has particularly emphasized the fact that the wing of the library building devoted to the stack must soon be extended. The shelves, though not yet entirely occupied, will soon be filled if the present rate of growth of the library be maintained. Moreover, additional room would at once facilitate our work, since it is impracticable, while the re-classification is going on, to use all the shelves as economically as may be done when this shall have been completed.

American History Room.

The re-cataloguing of the books for the American history room progresses steadily, although it will hardly be possible to complete the work until the fiction catalogue has been finished. Enough has already been done, however, to render it possible for students to begin to use the room. For this purpose I recommend the purchase of two tables and a suitable number of chairs.

This room is intended primarily for American local history and genealogy, and, although its shelf capacity can be increased, most of the books of wider range will ultimately have to be returned to the stack. For the present, however, it will be possible to place in this room the greater part of our books dealing with United States history.

Newspaper Room.

The files of bound newspapers have been entirely re-catalogued and are now brought together in the basement room which is under the children's reading-room. By this rearrangement they may be consulted far more readily than has heretofore been possible, and it is no longer necessary to carry the unwieldy volumes to the main reading-room, where oftentimes the tables were found already fully occupied.

Children's Reading-Room.

No important changes have been made in the children's room during the past year. The room is often taxed beyond its seating capacity, and we have been reluctantly compelled on a few occasions to send children out because there was absolutely no room for them.

I am strongly in favor of placing in this room all the juvenile books for circulation, so that the children may have as free access to them as they now have to the books kept for their use in the building. This cannot be done at present, however, as the room we now have does not possess sufficient shelf space, nor is it large enough in other respects. As the adoption of this plan would be merely an extension of privileges which the library already grants to children, I hope some future enlargement of the building may render it feasible.

It is worthy of note that while we now lose by theft comparatively few books from this room the spells wrought by Mr. Andrew Lang's fairy stories are so potent, that some of our small readers cannot bring themselves to part with them. At all events these particular books disappear with a regularity which is at least highly flattering to the compiler. And one is reminded that Mr. Lang himself once prayed: —

"Reverse the rules of mine and thine.
Make it legitimate to steal
The books that never can be mine!"

Local Delivery Stations and Branch Libraries.

A new delivery station was established, January 5, 1896, at the drug store of Miss Carrie E. Phillips, at the corner of Concord and Huron avenues. This station has not brought in a large number of new takers of books, but it has proved of great convenience, especially in the winter season, to many people in the vicinity who were formerly compelled to go a long distance to the central library. In October, another station was started at the store of Michael Whalen, on Massachusetts avenue, above the railroad crossing. Through this station we hope to reach many persons who have never made use of the library; and the results of the first few weeks have been of a very encouraging nature.

The change of location in our Cambridgeport station has resulted in a decreased circulation, although the addition of the books circulated through the small branch libraries, to be mentioned later, gives a total slightly in excess of that of last year. It was apparent when the change was made that the new station was not so conveniently situated as the old one. But since it seemed wise to combine with the delivery station the branch library which it was desired to establish, and for which Mr. Thorndike's store could not well furnish the necessary space, a new location became necessary.

Early in the year, about one hundred books were sent to the Prospect Union, to be used in the building or loaned outside as might be desired. The books have been returned to the library from time to time, and others have been sent in their places. Early in April we began to send books in a similar way to the Young Women's Christian Association, and about a week ago (November 18) some were sent to the East End Christian Union on Brewery street. All these books are read to a very considerable extent in the rooms where they are deposited, although no record of this appears in our circulation figures, since the intentionally unrestricted use to which the books are subjected precludes the keeping of any account. Books drawn for home reading are charged directly to the persons taking them, without the use of library cards; and in all cases the charging slips are saved to be returned to the central library.

It is my belief that deposits of books made in this way in different parts of the city will prove important factors in gradually extending the usefulness and influence of the public library. And I think we should invite requests for temporary loans of books from any organization which bids fair to put them to profitable use among its members.

We should establish as soon as possible another delivery station in East Cambridge, which is at present the part of the city most inadequately covered. With this object in view, I have already visited, together with the president of your board, a few of the possible locations. Wherever the station may be placed, I hope it may be possible to combine with it a branch library which shall be larger than those with which we have already experimented.

New delivery stations and temporary loans of books will not, however, suffice for all the local needs in a city as large as Cambridge. We should have in view, as one of the most desirable ends in the expansion of the library, the establishment of at least three branches: one in East Cambridge, another in Cambridgeport, and a third in North Cambridge. The chief feature of each branch would be a reading-room containing some of the most popular periodicals, a few newspapers, and the reference books most frequently in demand. Other books for circulation might be added from time to time, which should be the permanent property of the branch library. And as these books would in most instances be books which experience has shown to be steadily called for, the delay caused by the necessity of sending to the central library might frequently be avoided. For it is hardly necessary to add that the branch library would be the delivery station for its immediate district.

I have outlined the above plan, not with any expectation of its immediate fulfilment, but with the hope that you may give it careful consideration as a means of enlarging the usefulness of the library, and that we may in a measure outline our future work with some such end in mind. I think, however, the time ought to be near at hand when we may find it possible to start a branch library in one at least of the localities suggested. At the outset the expense need not be great; while the future growth of the undertaking would in any case be regulated by the demands of the people as well as by the means at our disposal.

Library Bulletin.

Through the inability of the Cambridge Co-operative Society to carry out the publication contract, the library bulletin has proved a source of expense during the latter part of the first year of its existence. The original plan of giving full titles and of indexing the contents of books has been adhered to in the main, although it has been found necessary, chiefly on account of the extra expense involved, to abridge somewhat the explanatory notes. The publication, however, seems to have met with favor and is now more sought for than when it first appeared. The bulletin is of particular value to people who use the local stations, as well as to others who cannot well come to the library, as a source of information as to the library's growth. And for this reason, if for no other, I strongly recommend that its publication be continued.

Mr. Huling, master of the English High school, has given his cordial co-operation in making our bulletins of service, and he distributes systematically every month about four hundred copies throughout his school.

Library Hours.

Although the library is not situated on one of the busiest streets of Cambridge, I think the reading-rooms would be well patronized if kept open until a later hour. As a first step, I would suggest that you consider the advisability of opening the library Sunday evenings, instead of closing at 6 o'clock. Should this be done, there need be no change in our present arrangements beyond the employment of an evening attendant.

If, as I hope, we shall find it profitable to keep our reading-rooms open until 10 o'clock every night, we should add to our staff two attendants, one of whom should come on duty every day at 6 P. M. These attendants would be expected to have a very considerable knowledge of the reference library and to be in readiness to lend their assistance to people in the reading-rooms. The additional expense resulting from these longer hours would be small, as may be proved by the experience of other libraries which have tried a similar plan. And two attendants are suggested instead of one for the reason that it is somewhat difficult to find a suitable person who is able or willing to give up every evening to work of this kind; while, at the same time, the cost is no greater, since payment would naturally be made by the hour.

Under no circumstances would I recommend asking longer hours of service from any of the present regular staff, even though additional compensation were offered. I do not think the interests of the library would be advanced by increasing working hours which are already quite long enough.

Library Staff.

Another assistant, Miss Harriet D. Lochman, was added to the library staff at the beginning of April. Her time is divided between the delivery desk and the work of the local stations. At the time of Miss Lochman's appointment, the library sustained a genuine loss by the resignation of Miss Winifred B. Smith, who accepted the position of first assistant in the public library of Brookline. The trustees decided that the vacancy created by Miss Smith's departure (as well as all future positions not requiring special training in library work) should be filled by a choice from among those applicants who should pass an examination to be given by the librarian. In accordance with this vote an examination was held April 21, 1896, and out of twelve applicants who presented themselves four passed, and their names were accordingly placed on the list of eligible candidates. From these four Miss Haida N. Parker was chosen to fill the vacancy.

The results of this examination were sufficiently satisfactory to warrant a continuance of the practice thus begun. Of the many applicants for positions in the library, nearly all are totally unknown to us, and a test of some kind has become necessary in order to give at least a basis for judging of their comparative merits.

Circulation.

In the first appendix to this report you will find the detailed figures of the circulation of books. The total is not so large as that of last year, partly due to the fact that the library was closed for repairs during a week in July. The Huron avenue station has taken somewhat from the work of the main library (for it is here that the loss has occurred), and the opening of the Harvard library in the evening has also made a perceptible difference. The chief decrease occurred in the spring, while, on the other hand, the quarter just closed shows a gain over last year.

As compared with last year, the local circulation was less during the summer months and greater during all the rest of the year. It is too early as yet to state definitely just what effect the small branch libraries will have on this department of our work; but if the number of such branches be increased, a considerable change in the comparative circulation of the several stations is likely to follow.

The schools show an increase over last year in the number of books taken from the library. The circulation of November 6 was 532, the largest since the school delivery was begun. By far the most marked increase has occurred in the case of the Putnam school, which has taken 1,404 books as against 764 last year.

Respectfully submitted,

WM. L. R. GIFFORD,
Librarian.

APPENDIX I.

General Statistics.

Total number of volumes in the library	51,679
Volumes added during 1896	4,163
Volumes condemned	1,814
Duplicates exchanged and sold	71
Volumes destroyed on account of contagious diseases	24
Volumes outstanding, probably lost	23
Volumes bound	1,777
Postal cards sent for books overdue	7,238
Present number of card holders	13,168

Circulation.

	Central.	Local.	Schools.	Total.
First Quarter	28,720	6,152	2,490	37,362
Second Quarter	27,057	7,134	2,460	36,651
Third Quarter	20,076	4,652	.....	24,728
Fourth Quarter	26,265	5,958	2,568	34,791
Total	102,118	23,896	7,518	133,532

Average per day (Central library)	344
Average per day (Local stations)	164
Average per day (Schools)	221
Largest issue (Central library), Jan. 25	762
Largest issue (Local stations), March 21	311
Largest issue (Schools) Nov. 6	532
Smallest issue (Central library), Dec. 5	157
Smallest issue (Local stations), Dec. 13	31
Books drawn from the stack for hall use	12,701
Teachers' books drawn directly from library	1,433

Classified Circulation.

	Biography.	Current Magazines.	Fiction and Juveniles.	Foreign Literature.	General Works.	History.	Literature.	Science and Arts.	Travels.	Total.
Central Library..	4,237	2,582	69,510	1,682	796	4,637	10,032	6,148	2,494	102,118
Local Stations ...	940	149	18,491	231	192	906	1,227	1,052	708	23,896
Schools...........	644	....	3,931	14	6	1,083	481	567	792	7,518
Total.........	5,821	2,731	91,932	1,927	994	6,626	11,740	7,767	3,994	133,532
Per cent	.043	.02	.688	.014	.007	.05	.088	.06	.03	

School Delivery.

Name of School.	Agassiz.	Allston.	Corlett.	Harvard.	Latin.	Morse.	Peabody.	Putnam.	Shepard.	Sleeper.	Thorndike.	Washington.	Webster.	Wellington.	Total.
Books delivered	116	960	323	392	74	284	892	1,404	412	123	600	698	434	826	7,518

Local Delivery.

Stations.	Whalen	Hunnewell.	Phillips.	Grant.	Reycroft.	Gove.	Dow.	Prospect Union.	P.U. & Y.W.C.A. Branches.	Total.
Books delivered.........	*316	8,058	2,282	1,590	2,805	2,371	2,926	2,478	1,070	23,896

* Since 26 October, 1896.

Additions (Including Replaced Books).

Source.	City Appropriation.	Citizens' Subscription Fund.	Cummings Fund.	Fay Fund.	Gifts.	Total.
Books........................	3,678	16	3	14	452	4,163

APPENDIX II.

Amounts Received by the Librarian and Deposited with the City Treasurer.

	Fines.	Catalogues.	Duplicates.	Paper Stock.	Total.
December-February	$157 38	$2 75			$160 13
March-May	132 89	25		$4 40	137 54
June-August	93 04	1 00	$6 00		100 04
September-November	105 96	2 75		3 70	112 41
	$489 27	$6 75	$6 00	$8 10	$510 12

City Appropriation.

Appropriation		$18,500 00
Deficit in estimated revenue		103 05
Amount available		$18,396 95

EXPENDITURES.

Binding	$929 79	
Books and periodicals	5,640 05	
Carrier	468 60	
Fuel	526 73	
Furniture	473 26	
Incidentals	363 28	
Insurance	108 00	
Lighting	1,181 26	
Local stations	363 16	
Printing	493 47	
Repairs	557 85	
Salaries	7,248 61	
		$18,354 06
Amount unexpended		$42 89

Funds of the Trustees.

CITIZENS' SUBSCRIPTION FUND.

Balance, December 28, 1895		$91 68
Interest on bonds		220 00
Interest on deposits		3 72
		$315 40

EXPENDITURES.

W. B. Clarke & Co.	$25 00	
T. W. Higginson	20 00	
Houghton, Mifflin & Co.	25 00	
Little, Brown & Co.	21 00	
Jos. McDonough	5 00	
George H. Polley & Co.	53 50	
Prince Society	5 00	
James T. White & Co.	8 00	
		162 50
Balance on hand Dec. 28, 1896		$152 90

CUMMINGS FUND.

Balance, Dec. 28, 1895		$63 10
Interest on bond		80 00
		$143 10

EXPENDITURES.

Burrows Bros. Co.	$3 50	
T. H. Castor & Co.	27 00	
J. B. Millet Co.	50 00	
		80 50
Balance on hand Dec. 28, 1896		$62 60

FAY FUND.

Balance Dec. 28, 1895		$23 18
Interest on bond		40 00
		$63 18

EXPENDITURES.

John Britnell	$2 25	
F. W. R. Emery	10 00	
Wm. George's Sons	2 21	
Little, Brown & Co.	25 00	
		39 46
Balance on hand Dec. 28, 1896		$23 72

APPENDIX III.

Gifts.

	V.	P.
Agassiz, Alexander,		4
Aguilar Free Library Society, New York		1
Allen, Joseph H.	1	
American Humane Association		2
Ancient and Honorable Artillery Company	1	
Andover Theological Seminary		1
Barnes, Albert M. 13 photographs	1	
Bartlett, John	1	
Bent, Sarah C.	8	
Benton, J. H., jr., Boston		1
Boston, City of	4	
Boston Public Library		7
Boston Transit Commission	1	
Bradlee, Caleb D., Boston		1
Brookline Public Library		7
Brooklyn (N. Y.) Library		2
Bureau of American Republics, Washington, D. C.	1	
Cadbury, Richard, London	1	
Cambridge, City of	2	
Cambridge School for Girls		1
Carnegie Free Library, Allegheny, Pa.		1
Carnegie Library, Pittsburgh, Pa.	1	6
Carret, J. F.,		11
Catholic Publishing Co., Boston		1
Cincinnati Public Library		1
Civil Service Reform Association, New York		1
Clarke, A. P.	2	
Cobden Club, London		2
Coolidge, J. I. T.	43	
Crocker, Uriel H., Boston	1	
Dana, Richard H.,		1
Davis, A. McFarland,		2
Davis, W. M.	9	
Douet, George A., Kingston, Jamaica		1

	V.	P.
Dover (N. H.) Public Library		2
Ela, Walter		9
Enoch Pratt Free Library, Baltimore		1
Everett Public Library		1
Fall River Public Library		1
Farrand, Max		1
Field Columbian Museum, Chicago		7
Fitz Public Library, Chelsea		1
Fletcher Free Library, Burlington, Vt.		1
Forbes Library, Northampton		1
Gifford, W. L. R.	3	
Gildehaus, C., St. Louis, Mo.	1	
Gilman, A.		1
Gray, *Mrs.* Asa	16	
Green, S. A., Boston	6	1
Greene, Jacob L., Hartford	1	
Hartford Public Library		1
Harvard Law School Association	1	
Harvard University	2	1
Haskins, David Green		1
Hayes, John S., Somerville		1
Higginson, T. W. Manuscripts,	10	
Hill, F. Stanhope	1	
Hoepli, Ulrico, Milan, Italy	1	
Holmes, O. W., Boston	2	
Home Science Publishing Co., Boston	3	
Huling, Ray Greene		1
Jones, Mary T. P.	2	
Lancaster Town Library		1
Lane, *Mrs.* C. M.	4	
Lawrence Public Library		1
Lee, G. Herbert, Boston	1	
Leffingwell, A.		1
Leslie A. von W., Baltimore, Md.		1
Lexington Historical Society		1
Leyton (Eng.) Public Library		1
Library Hall Association		4
Little, Brown & Co., Boston	1	
Livermore, Mary A. C.	13	
Lowell City Library		2
Lynn Public Library		1
McCall, S. W., Washington, D. C.	8	

	V.	P.
McCormick, Cyrus H., New York	1	
McKenzie, Alexander	1	2
Macullar, Parker & Co., Boston	1	
McNamee, J. H. H.		1
Malden Public Library,		1
Manchester (N. H.) City Library		1
Marean, *Mrs.* Emma E.		1
Massachusetts, Commonwealth of	38	11
Massachusetts Charitable Mechanic Association, Boston		1
Massachusetts Historical Society, Boston		1
Massachusetts Humane Society, Boston		2
Massachusetts Institute of Technology, Boston		1
Massachusetts Society Opposed to the Extension of Suffrage to Women, Boston	2	
Massachusetts Universalist Convention, Boston		1
Metropolitan Park Commission, Boston	2	
Minneapolis Public Library		2
Moreland, F. A.	1	
Munroe, C. E., Washington, D. C.		3
Museum of Comparative Zoölogy	2	6
Nash, *Miss* M. A.	3	
National Democratic Committee		1
New Bedford Free Public Library	1	12
New Haven Free Public Library		3
Newark Free Public Library		1
Newton Free Library		1
Nielsen, Johann	5	
Northampton Public Library		1
Northwestern University, Evanston, Ill.		1
Oberlin College Library		4
Palfrey, *Miss* M. G.	1	2
Paterson (N. J.) Free Public Library		1
Peoria (Ill.) Public Library		1
Peterson, John	6	
Picard, Jules	2	
Piper, William Taggard		1
Plainfield (N. J.) Public Library		1
Portland (Oregon) Library Association of		3
Portland (Maine) Public Library		1
Poughkeepsie City Library		1
Prospect Union	1	

	V.	P.
Providence Athenæum		2
Providence Public Library		11
Public Reservations, Trustees of	1	
Quincy Public Library		1
Redwood Library, Newport		1
Robbins Public Library, Arlington		1
Rolfe, George W.		3
Rolfe, W. J.	24	
Russell, Etta Lois	1	
St. Laurent, C. F., Montreal	1	
St. Louis Public (Free) Library		1
Salem Public Library		14
San Francisco Free Public Library		2
Scranton (Pa.) Public Library		10
Seagrave, C. Burnside	1	
Seattle Library Commission		1
Securities Company, New York	1	
Smithsonian Institution, Washington, D. C.	12	
Somerville Public Library		10
Southbridge Library		1
Spencer, *Mrs.* Caroline P., Chapel Hill, N. C.	1	
Springfield City Library		13
Syracuse (N. Y.) Central Library		1
Taunton Public Library		1
Tufts Library, Weymouth		1
Tulane University, New Orleans		1
United States:		
Agriculture, Department of		1
Bureau of Education	7	
Bureau of Ethnology	1	
Fish Commission	1	
Interior, Department of	11	
Interstate Commerce Commission	1	
Labor, Department of	2	
Navy, Department of	1	
Superintendent of Documents	133	
Treasury, Department of	17	
United States Court of Claims	1	
University of Pennsylvania, Philadelphia		1
Utley, Samuel, Worcester	1	
Vogl, Adolph	2	
Waitt, A. S.	4	23

	V.	P.
Watertown Free Public Library		1
Wheeler, E. W.	1	
Wheeler, J., Wheeler, Ala.		1
Wilmington (Del.) Institute		1
Winslow, Wm. C., Boston		1
Winsor, Justin		4
Wisconsin State Historical Society, Madison, Wis.	1	1
Woburn Public Library		1
Women's Relief Corps	1	
Worcester Free Public Library		5
Yale University, New Haven, Conn.		1

REPORT OF THE COMMISSIONER ON HARVARD, WEST BOSTON, CRAIGIE'S AND PRISON POINT BRIDGES.

To the Honorable the City Council of the City of Cambridge:—

The Commissioner for West Boston, Craigie's and Prison Point Bridges submits for himself and associate, the twenty-sixth annual report of the matters pertaining to West Boston and Craigie's Bridges, the twentieth annual report on Prison Point Bridge, and the fifth annual report on Harvard Bridge.

Harvard Bridge.

Harvard Bridge is in good condition. The principal repairs made during the year are as follows: The wearing plank on the surface of the roadway has been entirely renewed, without interrupting public travel. Experience has shown that the two inch spruce plank making the wearing surface of the roadway will have to be renewed every year.

The iron work underneath the surface of the bridge has been cleaned from rust and painted. Paint stock was bought at wholesale prices, and the work done by the day, the drawtender and assistants working with the painters when not otherwise employed. A saving of some hundreds of dollars was made by doing the work in this manner.

The asphalt sidewalks on the bridge were in bad condition. They were originally laid by two asphalt paving companies, each of which gave bonds in the sum of one thousand dollars conditioned upon maintaining the work in good condition for five years.

One half the sidewalk on the bridge laid by the Barber Asphalt Paving Company has been entirely renewed by them without cost to the two cities, and the remaining sidewalk will be made good by the guarantors next year.

The avenue connecting the bridge with Boston has been paved at the request of the Commissioner, and a part of the avenue in

Cambridge next the bridge should also be paved to prevent the cracked stone and dirt from being carried on to the bridge by teams.

The drawtender's house, the iron fences, and the iron work outside the rail will require painting next year.

The smaller repairs are made by the drawtender and assistants. They also clean the surface of the bridge weekly, and keep the electric light globes clean and in order.

The cost for replanking the roadway was $2,804.82, Boston paying one half.

West Boston Bridge.

The bridge is entirely worn out, and only constant inspection and repairs prevent serious accidents. During the year the piles supporting the bridge settled in places as much as five inches under the extreme loads carried. To stop this alarming settlement repairs were made on small sections at a time without interrupting travel. Additional piles were driven through small openings made in the bridge, and 62 oak piles, 30 spruce piles, 41 new stringers and twelve new girder caps were used in the repairs.

The bridge for a long time has been too narrow to accommodate the travel, which yearly increases. It is in the line of the heaviest travel from Boston to Cambridge and the country beyond, and the Commissioner recommends the immediate construction of a substantial modern bridge not less than one hundred feet in width. This bridge should be built with a reserved space for street cars, two roadways for teams and two footways.

The curb was reset and brick sidewalks laid in front of the estates of Rawson & Morrison and G. Damon. The roadway on the draw has been re-sheathed when necessary.

The bridge has been swept once a week, always after midnight, and watered three times daily with salt water in dusty weather. Sweeping piers and draw, cleaning snow from draw-piers and sidewalks, and the small ordinary repairs have been made by the drawtender and assistants.

The house on the draw-pier will need painting, and other repairs next year.

Canal or Craigie's Bridge.

The bulkhead at the end of the bridge at the draw has been rebuilt, using oak piles and 6 inch hard pine planks. The end of the down stream draw-pier has been strengthened by driving additional oak piles, and planking with 6 inch hard pine plank. The roadway pavement has been repaired and the draw sheathed whenever worn out. The ordinary small repairs have been made by the drawtender and his assistants.

The bridge is swept once a week, always after midnight, and the roadway is watered with salt water three times daily when necessary to lay the dust.

Prison Point Bridge.

The abolition of the grade crossing of the Boston and Maine railroad, which will soon be effected, will require an entirely new bridge at this point. The old bridge is in bad condition, as only such repairs as are necessary to keep it safe have been made.

The smaller repairs have been made by the drawtender. The drawtender's house will have to be painted this next year.

The sidewalks on the southerly side of the bridge on the Cambridge end, and part of the northerly sidewalk are in poor condition and will require rebuilding next year. The Drawtender's house and the power house on the draw-pier should be painted.

In General.

The usual statement is appended showing the number of draw openings and the number of vessels which passed through, also table showing the traffic over the bridges on April 18, 1896.

The amount of revenue received for rents, dockage repairs to the West End Street Railway Company's tracks, etc., during the year has been $1,624.14; one half, $812.07, has been paid to each city.

Respectfully submitted,

WILLIAM J. MARVIN,

Bridge Commissioner for Cambridge, and Harbor Master on Charles and Miller's Rivers and Broad Canal.

December 21, 1896.

Erratum.

On page 396 the third paragraph under the heading "Prison Point Bridge" should be printed as the last paragraph under "Canal or Craigie's Bridge," to which it refers.

Statement, Showing Traffic Over Bridges.

Date. 1896.	Bridge.	Teams.	Horses.	Pedestrians.	Bicycles.	Electric Cars.	Car Passengers.
April 16, 6 A. M. to 7 P. M.	Harvard.....	3,801	4,851	7,998	3,352	478	13,750
	West Boston	4,035	5,466	9,902	246	1,046	20,231
	Craigie......	7,284	10,926	14,913	202	563	12,695
	Prison Point	1,975	2,916	3,962	95	......	......
		17,095	24,159	36,775	3,895	2,087	46,676

Numbers of times the Draws in Harvard, West Boston, Craigie and Prison Point Bridges have been opened, and Number of Vessels which have passed through for the year beginning Dec. 1, 1895, and ending Nov. 30, 1896.

DATE.	CANAL OR CRAIGIE		WEST BOSTON.		HARVARD.		PRISON POINT.	
Dec. 1, 1895, to Nov. 30, 1896.	Number of Draw Openings.	Number of vessels passing through.	Number of Draw Openings.	Number of vessels passing through.	Number of Draw Openings.	Number of vessels passing through.	Number of Draw Openings.	Number of vessels passing through.
1895.								
Dec.....	304	317	113	168	119	148	36	52
1896.								
Jan.....	142	215	31	55	23	34	17	23
Feb.....	125	175	27	44	22	32	21	28
March ..	149	201	31	66	20	38	15	22
April....	289	320	70	107	50	70	39	50
May	397	504	155	239	124	187	74	94
June....	384	448	113	161	88	123	32	41
July	329	421	154	257	107	158	9	13
August..	433	731	285	644	127	194	52	65
Sept....	323	465	176	354	85	131	41	53
Oct......	229	325	121	214	65	98	42	57
Nov.....	276	346	110	175	115	161	36	54
Total...	3,380	4,468	1,386	2,484	945	1,374	414	552

CITY CLERK'S REPORT OF FEES AND LICENSES.

Office of the City Clerk, December 1, 1896.

To the Honorable the City Council of the City of Cambridge: —

The undersigned herewith presents an account of the sums received for fees and licenses during the year ending November 30, 1896: —

Auctioneers' Licenses	$50 00
Pool, Bowling Alley and Billiard Licenses	92 00
Wagon and Carriage Licenses	261 00
Intelligence Office Licenses	38 00
Junk Stores and Collectors' Licenses	251 00
Pawnbrokers' Licenses	4 00
Recording Mortgages, Assignments, etc.,	578 70
Marriage Certificates	514 00
Certified Copies from Records	88 65
Fees from Dog Licenses	370 40
Fees from Liquor Licenses	50 00
Fees from Fireworks Licenses	106 00
Minors' Licenses and Sundries	134 00
Total	$2,537 57

The foregoing amount has been paid into the City Treasury.

The receipts from Dog Licenses have been $4,299.00. Of this amount the City Clerk's fee (20 cents for each license issued), amounting to the sum of $370.40, is included in the above list of fees, and the balance, amounting to $3,928 60, has been paid to the County Treasurer.

Respectfully submitted,

EDWARD J. BRANDON,
City Clerk.

REPORT OF THE CITY MESSENGER.

Office of the City Messenger, December 1, 1896.

To the Honorable the City Council: —

Gentlemen: — In compliance with the Ordinance relating to the purchase and delivery of stationery, the City Messenger has the honor to submit his annual report: —

Stock of Stationery on hand Dec. 1, 1895	$298 94
Purchased during the year	1,258 81
	$1,557 75

Delivered to heads of departments as follows: —

Street Department	$46 16
City Clerk Department	142 10
Engineering Department	86 24
Clerk of Committees' Department	125 05
Auditing Department	80 73
City Messenger Department	196 84
Treasury Department	32 44
Police Department	52 77
Lamp Department	6 33
Assessors' Department	76 24
Fire Department	8 82
Inspector of Milk Department	15 20
Superintendent of Public Buildings	39 27
State Aid Agent	13 06
Inspector of Wires	8 80
Law Department	46 20
Executive Department	67 23
Election Expenses	43 64
Sealer of Weights and Measures	6 33
Registrars of Voters	25 31
Park Department	101 22
Ambulance Department	5 89
Sewer Department	4 73
Stock of Stationery on hand Dec. 1, 1896	327 15
	$1,557 75

Respectfully submitted,

FRANCIS L. PRATT,

City Messenger.

REPORT OF THE INSPECTOR OF ANIMALS AND PROVISIONS.

To the Honorable the City Council: —

Gentlemen: — In accordance with the requirements of the ordinance in relation to the inspection of animals intended for slaughter or kept for the production of milk, I beg leave to submit the following report for the financial year ending November, 30, 1896: —

Appropriation		$800 00
EXPENDED.		
Salary	$700 00	
Drugs, etc.	93 60	
		$793 60
Balance		$6 40

In compliance with instructions from the Cattle Commissioners of the State, all stables in the city wherein cows are kept have been examined. There are twenty-five of these stables in the city and I found that in all of them the owners had conformed to the sanitary laws and that they were in a satisfactory condition. A physical examination of the one hundred and forty cows showed them to be in a healthy condition, it being necessary to quarantine but three and only one was killed.

Under the Act of June 30, 1894, requiring all slaughtering establishments to be licensed and inspected, I have inspected the two which are in operation in this city. At one, 2,800 calves were slaughtered, of which 200 were condemned as too young and unfit for food; at the other 400 beeves were slaughtered, the greater part being cows which had been examined and tested and which had the State brand on them.

By direction of the local Board of Health, I have visited and examined a number of provision stores where meat unfit for food was supposed to have been exposed for sale; and I am confident that this inspection has been productive of good results.

I have examined three cases where claims have been made against the city for damages to horses by reason of accident, all of which were satisfactorily settled.

Glanders has not been prevalent to any considerable extent, but twelve horses having been killed by reason of that disease during the entire year. The horses owned by the city are in a generally healthy and satisfactory condition. I have made 426 visits at the various departments of the city having horses under their charge, and have examined fourteen horses for soundness, which had been offered for sale to several of the city departments.

Respectfully submitted,

CHARLES E. HADCOCK, M. D. V.,
Inspector of Provisions, etc.

REPORT OF THE COMMITTEE ON SOLDIERS' AID.

The Committee on Soldiers' Aid submits to the City Council is report for the year ending November 30, 1896 :—

The amount paid as regular State Aid was	$12,283 00
The amount paid to indigent soldiers and sailors was . .	1,714 67
The amount paid as soldiers' relief was	6,132 00
The amount paid for the burial of deceased indigent or friendless soldiers or sailors was	420 00
The amount paid to the clerk and agent employed in the examination of settlements, etc., was	900 00
Printing and stationery	80 76
Aid by cities and towns	218 04
Board and care of sundry persons	1,258 96
Car tickets and Carriage Hire	18 00
Fuel	92 90
Sundry supplies	90 70
Total	$23,209 03
The amount received from the Commonwealth was . .	$13,819 85
The amount received from other towns and cities was .	225 09
For sundry authorized payments which were not paid .	173 00
	$14,217 94

There are now upon the State Aid list 253 persons, and upon the list of indigent soldiers and sailors 12. The number of persons upon the soldiers' relief list is 81.

All of which is respectfully submitted.

PETER F. ROURKE,
JAMES A. WOOD,
PETER P. BLEILER, *Committee on Soldiers' Aid.*
CHAS. P. KEITH,
HENRY WHITE.

REPORT OF THE SEALER OF WEIGHTS AND MEASURES.

Office of the Sealer of Weights and Measures,
Cambridge, November 30, 1896.

To the Honorable the City Council: —

I have the honor of submitting to you the annual report of the Department of Weights and Measures.

Amount of appropriation			$1,600 00
RECEIVED.			
For fees for sealing	$407 40		
For fees for weighing	85 00		
		$492 40	
EXPENDED.			
For salaries:—			
Sealer, A. F. Roberts		$977 08	
Assistant, C. D. Kinnear		141 25	
Board of horse and care of wagons and harnesses, Geo. D. Merrill		300 00	
Repairs on and painting wagon, Nelson Carriage Co.		25 85	
Stamps and burning brands, Jas. Ryan		6 75	
Roll top desk, W. B. Badger & Co.		28 00	
Horse-shoeing, Gerry & Rufer		18 75	
Annual advertising, Cambridge Chronicle		1 50	
Car tickets, West End Railway Co.		10 00	
Repairs on city scales		6 26	
Hardware (nails, etc.) F. A. White		3 22	
Painting city scales, J. J. Shedd		3 03	
Stationery, postage stamps, etc., Messenger		6 33	
Weighing fees, Edmund I. Train		33 57	
Weighing fees, Thomas Gurnham		8 93	
			1,570 52
Balance unexpended			$29 48

Whole number of scales, weights and measures inspected	38,226
Whole number of scales, weights and measures condemned	679
Whole number sealed	37,547

Number of scales found incorrect and adjusted	215
Number of weights found incorrect and adjusted . . .	140
Number of dry measures found incorrect and adjusted .	74
Number of wet measures found incorrect and adjusted .	15
Number of milk cans found incorrect and adjusted . .	225
Total	669

Number of scales condemned	23
Number of weights condemned	35
Number of dry measures condemned	63
Number of wet measures condemned	18
Number of milk cans and bottles condemned	540
Total	679

In my reports of 1894 and 1895, I recommended that an ordinance be passed requiring all hawkers and pedlers who desire to do business within our city limits to procure a license from the city, for which they shall pay a reasonable sum of money, and in violation of which they shall be arrested and fined in such an amount as may be specified.

His Honor, the Mayor, in his address at the organization of the City Government in 1895, recommended that such an ordinance be passed ; subsequently it came up before the Board of Aldermen and was referred to the Committee on Ordinances. One hearing was had, and then it was pigeonholed, where it has remained until this day.

The interests of the citizens now demand that such an ordinance be passed. In our neighboring cities ordinances of this kind have been passed, and they are rigidly enforced, in consequence of which an innumerable number of unscrupulous hawkers and pedlers are continually flocking to our city (where no license is required) and here they impose upon the unsuspecting by the use of short measures and an inferior class of goods, and by underselling the regular dealers who pay rent for the privilege of doing a straight and legitimate business, and also the pedlers who are our own citizens and who pay taxes for the support of this City Government.

It is impossible for the Sealer of Weights and Measures to be in two parts of the city at the same time, and it is a very easy matter for those who choose to know the exact whereabouts of that official whom they invariably try to shun.

The work of this department is steadily increasing with the growth of the city.

The amount of work done at the office of the Sealer is also correspondingly increased, thereby diminishing the revenue of the department.

No accident has happened to anything pertaining to this department during the year. I have had to bring to justice several for the violation of the laws relating to the Department of Weights and Measures, and it is only through the strictest vigilance in this direction that our citizens are protected against the use of illegal weights and measures. I am,

Yours respectfully,

ALBERT F. ROBERTS.

Sealer of Weights and Measures.

REPORT OF THE TRUSTEES OF THE BRIDGE CHARITABLE FUND FOR THE YEAR 1896.

The twentieth annual report of the Trustees of the Bridge Charitable Fund is herewith submitted: —

The fund was established in the year 1876, under the conditions named in a deed of trust of Levi Bridge, who gave to the City of Cambridge a sum of money which he had accumulated through a long series of years. The money was originally placed in the hands of Hon. John Sargent, formerly Mayor of the City, to be held by him until the death of the donor, when the amount was to be transferred to the City. Mr. Bridge died in the year 1876, and the money then held by Mr. Sargent was formally transferred by the latter to the City Treasurer. The amount with accrued interest had reached the sum of $891.83. The City Council accepted the gift upon a report of the Committee on Finance, Sept. 27, 1876, and later an ordinance was adopted for the creation of a Board of Trustees who were to act as custodians of the fund, which was to be known as the Bridge Charitable Fund. The Mayor, President of the Common Council, for the time being, and one alderman, the last to be chosen annually by the City Council, were constituted the Board of Trustees.

The first Board of Trustees consisted of Hon. Frank A. Allen, Mayor, Perez G. Porter, Esq., President of the Common Council, and Alderman Walter S. Swan. During the same year a donation of similar amount to that of the original giver, namely $891.83 was made to the fund by the late Samuel J. Bridge, of Boston, who was a distant relative of Levi Bridge, thus making the total amount of the fund in the year 1876, the sum of $1783.66. This sum was deposited in the Cambridgeport Savings Bank where it has ever since remained. There has been one withdrawal from the fund in the year 1885 of the sum of $275.17 which was the amount of the accumulated interest due to the Overseers of the Poor, under the terms of the deed of trust. Since that year the money has been untouched, and has reached its present amount, although a considerable sum is now due therefrom to the Overseers of the Poor. The story of the gift of the two sums aggregating that of $1783.66 as before stated. is an interesting one, and is fully told in the communications of Hon. John Sargent and Samuel J. Bridge to the City Council in the year 1876. In his letter addressed to Hon. Frank A. Allen, Mayor, Mr. Samuel J. Bridge gives an account of the life and death of his kinsman Levi Bridge, and concludes by saying that this donation is made in the hope and expectation "that the City of Cambridge will always have a fostering care of his grave stone as well as those of his and my ancestors, Deacon John Bridge and his son Matthew, erected by me July 4, 1876, in the Old Cambridge burying ground."

The amount actually on deposit at the Cambridgeport Savings Bank, as of this fund July 18, 1895, was . .	$3,118 83
Interest to July 15, 1896	256 64
Total amount now in the fund	$3,370 47

By the terms of the deed of gift of Levi Bridge, two-thirds of the interest accumulated of the fund beyond the sum of $2000 are due and payable to the Overseers of the Poor. They have claimed only the sum of $275.00 as before stated, and about $800.00 is now due to them and subject to their call. They have heretofore preferred to allow their portion of interest accumulations to remain with the original fund until sufficiently large to be used for the purpose of its founder.

The Board of Trustees of the Fund as now constituted, consists of the Mayor, President of the Board of Alderman and President of the Common Council, for the time being. The duties are nominal only, as the money is on deposit, and practically takes care of itself. It is increasing in larger and larger volume year by year, and the time is not far distant when it may be made practically available.

WM. A. BANCROFT,
JOHN R. FAIRBAIRN, } *Trustees.*
JOHN L. ODIORNE,

REPORT OF THE TRUSTEES OF THE DOWSE INSTITUTE.

Cambridge, December 22, 1896.

To the Honorable the City Council: —

The Board of Trustees of the Dowse Institute respectfully reports that a course of five lectures, with one reading and two concerts, all of a scientific or literary character, was given in Union Hall, Cambridgeport, beginning October 29th, 1895, and ending January 14th, 1896. An attested copy of the accounts of the Treasurer is herewith transmitted showing the amount of receipts and expenditures.

The Dowse Institute was established in 1858 by the following instrument made by the Executors of the Will of Thomas Dowse, Esq. and confirmed by the action of the City Council as appended thereto.

To the City Council of the City of Cambridge: —

The Undersigned, Executors of the Will of THOMAS DOWSE, offer to the City of Cambridge Ten Thousand Dollars, for the purposes and upon the conditions following, to wit: that the City accepts the said Fund, and agrees to pay to the Trustees of the Dowse institute, established by a declaration of Trust, — a copy whereof is annexed to this Letter, — Six Hundred Dollars in each and every year forever, by equal semi-annual payments, on the first day of every June and December.

GEORGE LIVERMORE.
EBEN. DALE.

Declaration of Trust. — The late Thomas Dowse, of Cambridge, by his Will, after making liberal and impartial bequests to his relatives, devised and bequeathed the residue of his property to his Executors, in trust, to be by them applied and distributed for literary, scientific, and charitable purposes. In the discharge of this trust, the Executors, being desirous of using for some object of permanent and general interest, in the neighborhood where Mr. Dowse so long resided, as large a proportion of the property committed to them as is consistent with their knowledge of his wishes, have appropriated the sum of Ten Thousand Dollars for the establishment and support of an annual course of Public Lectures in Cambridge, under the name of The Dowse Institute; said sum to be paid to the City of Cambridge, upon the undertaking and agreement of said City to pay to the Trustees of said Institute Six Hundred Dollars, in every year forever, by equal semi-annual payments, on the first day of June and December.

And they hereby appoint Zelotes Hosmer, William W. Wellington, and Charles Deane, together with the Mayor and the President of the Common Council of Cambridge for the time being, the Trustees of the Dowse Institute, with full power to demand and receive from and of said City the said sum of Six Hundred Dollars, in every year, at the times aforesaid, upon trust, to apply the same to the purposes above named, in the manner following, viz:—

1. The Trustees shall provide, in every year, one or more courses of Lectures, of the highest character, on literary or scientific subjects, to be delivered in Cambridge. They shall determine the number, the place of delivery, and particular topics of the Lectures; shall select the Lecturers, and fix their compensation; shall fix the price of admission, —if, in their judgment, an admission-fee be expedient; and shall do all other acts and things proper and requisite in the execution of their trust as herein declared; making annually to the City Council of Cambridge a detailed report of their doings, including an exact account of their receipts and expenditures. And the said City Council shall constitute a Board of Visitors for the Dowse Institute, to the end that the funds at the disposal of the Trustees be not diverted from the purposes of this trust. The Trustees shall receive no compensation for their services; and no one of them, during his continuance in office, shall be appointed a lecturer under this trust.

II. In case the number of Trustees, exclusive of the Mayor and the President of the Common Council, shall at any time be less than three, the Board of Trustees shall forthwith fill such vacancy by election. Provided that, if any of the Trustees so elected, or of the three appointed by the Executors, shall become Mayor or President of the Common Council aforesaid, then it shall be at the discretion of said Board either to fill the vacancy so caused, or to suffer the same to remain unfilled; and any person elected to fill such vacancy shall hold office only so long as the former Trustee shall continue in said City office; and on each former Trustee vacating his City office, he shall resume his place as Trustee.

III. If the Trustees, in their discretion, shall require an admission-fee to the Lectures, the net proceeds thereof, after deducting the expenses of the Lectures, — or, if the Trustees deem it expedient, the gross proceeds, — shall be by them annually distributed for charitable, scientific, or literary purposes in the City of Cambridge, or for such other purposes of general interest therein as they deem advisable.

Cambridge, Mass., June 1, 1858.

In Board of Aldermen, June 2, 1858.

Whereas, The Executors of the late THOMAS DOWSE have established an Institution to be called the DOWSE INSTITUTE, and have endowed said Institute with a Fund of Ten Thousand Dollars: and

Whereas, The said Executors, by an instrument duly executed for that purpose, dated on the first day of June current, propose to place the said sum of Ten Thousand Dollars in the hands of the City of Cambridge, to be forever held by said City in trust, for the purpose and upon the conditions set forth in said instrument: be it therefore

Resolved, by the City Council of the City of Cambridge, that the City of Cambridge hereby accepts the aforesaid Fund of Ten Thousand Dollars upon the terms and conditions set forth in said instrument; and the Treasurer of the City is hereby authorized to receive the same from said Executors, and to hold it subject to the future order of the City Council.

Ordered, That the City Clerk be directed to furnish the said Executors and the Trustees of the Dowse Institute, each an attested copy of this Resolution and Order.

We deeply regret to record in this report the loss by death of our esteemed associate, Dr. William W. Wellington, who died October 27th, 1896. He was born in West Cambridge, now Arlington, July 29th, 1814. He was a member of the School Committee of this City more than forty years, during twenty-two years of which time he served as Secretary of the Board. Dr. Wellington was the last survivor of the original Board of Trustees of Dowse Institute, having been a member since the foundation of the Trust in June, 1858, and President of the Board since February 1878. During his uninterrupted service of thirty-eight years he had attended every meeting of the Board, with the exception of two or three during the last two years of his life. He took a constantly deep and active interest in carrying out the conditions imposed by the Trust, and devoted many hours of his widely useful and busy life to this work. The remaining members of the Board will miss his genial, courteous bearing and his wise counsel and active co-operation. With warm regard for the personal qualities of our colleague and highest respect for his ability and wisdom, we make this record of our sincere appreciation of his long and faithful service.

WILLARD A. BULLARD,
FRANK A. ALLEN,
WM. A. BANCROFT,
JOHN L. ODIORNE,
Trustees of Dowse Institute.

W. A. BULLARD, TREASURER, IN ACCOUNT WITH

Dr.

1895.	To Balance	$386 24
	City of Cambridge, interest on fund	600 00
	Tickets to course of entertainments	435 75
		$1,421 99

DOWSE INSTITUTE.

			Cr.
1895.	By Stamped envelopes	$17 40	
	Cambridge Press, advertising	20 00	
	Cambridge Chronicle, advertising	25 00	
	Cambridge Tribune, advertising	25 00	
	Cambridge News, advertising	20 00	
	J. H. Ford, printing	30 00	
	Geo. E. French, distributing circulars	2 55	
	F. L. Beunke, distributing circulars	3 45	
	D. H. Buck, distributing circulars	2 00	
	F. M. Buffum, distributing circulars	12 50	
	Express	25	
	Herbert Small, advertising circulars	20 00	
	A. B. Bullard, addressing circulars, mailing, etc.	5 00	
	F. M. Buffum, doorkeeper	8 00	
	A. F. Buffum, doorkeeper	8 00	
	C. L. Russell, doorkeeper	8 00	
	H. H. Dyer, ticket seller	8 00	
	Union Hall Association, rent of hall	320 00	
			$535 15
	Remenyi Concert Co., for a Concert	150 00	
	John B. Gordon, for a Lecture	175 00	
	Wm. Hamilton Gibson, for a Lecture	120 00	
	Geo. W. Bain, for a Lecture	60 00	
	R. L. Cumnock, for a Reading	75 00	
	Royal Bell Ringers, for a Concert	100 00	
	Roberts Harper, for a Lecture	75 00	
	John B. DeMotte, for a Lecture	100 00	
			855 00
			1390 15
Balance			31 84
			$1,421 99

ATTEST: W. A. BULLARD, *Treasurer.*

REPORT OF THE TRUSTEES OF THE SANDERS TEMPERANCE FUND.

To the Honorable the City Council:—

The annual report of this Board of Trustees, for the year 1896, is submitted herewith, it being the thirty-first since the establishment of the fund.

The philanthropic work which was begun and organized in our city in the year 1864 under the provisions of the Sanders bequest of $10,000 for the promotion of the cause of Temperance, has been continued during the year 1896. It met with a temporary interruption by the death, in May last of Mr. Alonzo Stewart, who had been the missionary of the fund since the year 1875. At the quarterly meeting of the Trustees, held on May 9th, the day following his decease, appropriate action thereon was taken, and the following preamble and resolve were adopted:

CAMBRIDGE, May 9th, 1896.

On Tuesday, May 5th, last, the venerable Alonzo Stewart expired at his home in East Cambridge, in the 86th year of his age.

For twenty-one years he had been the faithful missionary in the cause of temperance, under the terms of the bequest of Charles Sanders to the City of Cambridge. In season and out of season he never relaxed his efforts towards "reforming old drunkards and preventing young drunkards, and abolishing as far as possible the use of all intoxicating articles," the duty explicitly assigned to him by the terms of Mr. Sanders' Will.

Annually for the publication in the City Document, it was his custom to submit a report of his work for the twelve months preceding. Owing to his increasing debility and ill health, no report was prepared for the last year. His last report, made up to the close of the year 1894, states the amount of work he had done during the year, including daily visits to our district court, where he had personal interviews with many men and women arrested for drunkenness, or for crimes committed under the influence of intoxicating drink. The homes of many of these unfortunates were also visited by him, and constant effort made to surround them with happy moral influences. In all humility he labored, making no claim to any credit for what he had done, but trusting hopefully that the good seed he had sown would spring up, and the result be manifest in an abundant harvest. His own feeling as to his work may be best stated in his own language:

"Individual effort towards producing such results may seem small and of little worth, but when the whole is revealed in the light of eternity, we shall find that one redeemed life has influenced another life; and as each has awakened and vivified, another current has been set in motion that will never cease.

"Indeed, the manifold and far-reaching influence of any good work can never be known in this life, neither can any report that I may offer be complete and truthful unless it takes in the compass of both time and eternity." It is therefore

Resolved: That the Trustees of the Sanders Temperance Fund hereby record their tribute of sincerest respect to the memory of Alonzo Stewart, and further testify their thorough appreciation of the tireless zeal with which he has labored in his missionary duties under the terms of the Sanders bequest.

May his example be a strong incentive to us all to labor "with the zeal of him,—To make our land of Temperance the synonym," and may his memory be perpetuated in our hearts.

The vacancy occasioned by the death of Mr. Stewart, was filled by this board, by the appointment of Mr. James Hicks, who was warmly recommended for the position by many of the leading temperance advocates and workers in this city. His report for the period of his services up to November 30, 1896, is hereto appended.

JOHN R. FAIRBAIRN, } *Trustees.*
JOHN L. ODIORNE, }

To the Trustees of the Sanders Temperance Fund:—

Gentlemen:—In accordance with your requirements I herewith lay before you my report, which covers a period of six months since my appointment as missionary of the fund.

Following the example of my predecessor, the late Mr. Alonzo Stewart, I have been in daily attendance at the sessions of the District Court, where I have had opportunity to converse with a large number of the persons brought before the Court for drunkenness. Through the kindness of the Court I have been enabled to follow up many persons who have taken the pledge of total abstinence and who are giving good promise of reformation from the habit of strong drink. I have made seven hundred and two visits to the homes of this class of people with good results. Many of these homes I found laid waste, and every sacred thing dishonored, resulting from the use of the intoxicating cup. I have in every case been a welcome visitor; and it is wonderful to my mind how so many have tried to improve their condition. I could give some wonderful examples of what can result from the keeping of the pledge, though some have only had a few months' trial.

I have been present and assisted in the conducting of fifty-four Public Temperance meetings in the City where the pledge is offered, and many avail themselves of the opportunity of taking the same.

I have been present on the second Sunday in each month at the religious services in the House of Correction, and visited prisoners at other times, with a view of helping them to a better life after their release. I have also procured what suitable reading matter I could and assisted in its distribution amongst the men in the prison.

I have carefully read and prayerfully thought over the wishes of the founder of this fund, and my most sincere desire and effort will be to carry out his wishes, and through the help and blessing of God, succeed in reforming old drunkards, and prevent young drunkards, and to abolish, as far as possible, the use of all intoxicating drinks.

Most respectfully submitted,

JAMES HICKS.

REPORT OF THE CHIEF OF POLICE.

To his Honor the Mayor, and the City Council of the City of Cambridge:—

GENTLEMEN:—In compliance with the City Ordinance, I have the honor to present my annual report of the work of the Police Department for the year ending November 30, 1896.

The whole number of arrests for the year has been two thousand nine hundred and ninety-seven (2,997) against three thousand one hundred and eighty (3,180) last year.

Males	2,796
Females	201
Adults	2,419
Minors	578

The offences for which arrests have been made are as follows:—

Adultery	14
Assault and battery	157
Assault felonious	3
Assault on officer	9
Assault indecent	4
Assault with intent to rape	2
Attempt to commit larceny	1
Arson	3
Assault mutual	3
Attempt to break and enter	2
Assuming to be an officer	1
Abandoning child	2
Bastardy	11
Being present where gaming implements were found	1
Breaking and entering	80
Bigamy	1
Capias	5
Counterfeiting trade mark	2

Common drunkard	6
Concealing mortgaged property	1
Cruelty to animals	11
Default warrant	2
Disturbing public peace	218
Disturbing public meeting	1
Disorderly conduct	2
Disorderly house	5
Drunkenness	1,736
Disturbance on street car	40
Desertion U. S. Army	1
Embezzlement	12
Escaped prisoners	3
Evading car-fare	2
Exposure of person	3
Employing a minor	1
Forgery	5
Fornication	3
Gaming, or present at	1
Idle and disorderly	5
Insane	19
Illegal transportation	4
Illegal sale of liquor	5
Keeping unlicensed dog	2
Keeping oleomargarine	1
Liquor nuisance	20
Larceny	151
Larceny from building	3
Lewd and lacivious	1
Larceny from person	7
Malicious mischief	17
Manslaughter	1
Malicious injury to real estate	7
Non-support	53
Neglected children	16
Obtaining money by false pretence	5
Obstructing street car	2
Promoting a lottery	3
Promoting policy	1
Peddling without a license	13
Playing cards on the Lord's day	12
Profanity	2
Passing counterfeit money	2

Playing ball on the Lord's day		2
Runaways		1
Robbery		5
Rape		3
Refusing to assist an officer		1
Runaway teams caught		6
Safe keeping		9
Stubborn children		20
Stealing a ride		6
Suspicious persons		12
Tramps		1
Threatening		2
Truants		4
Trespass		19
Vagrants		13
Violating the Lord's day		1
Violating city ordinances		108
Violation of milk law		13
Violation of Internal revenue law		3
Violation of election law		1
Walking on R. R. track		67
Water running to waste		50
Whole number of lodgers		247
Male	241	
Female	6	
Adults	234	
Minors	13	
White	243	
Colored	4	

Amount of property reported stolen	$6,440 57
Amount of property recovered	5,772 75

Miscellaneous Business.

Accidents	109
Buildings found open and secured	480
Cases investigated	956
Dangerous buildings	3
Dangerous chimneys	5
Dead bodies found	3
Defective cesspools	46
Defective drains and vaults	4
Defective gas-pipes	16

Defective water-pipes	83
Defective hydrants	28
Defective lamps	1,642
Defective wires	8
Defective streets and sidewalks	1,107
Disturbances suppressed	225
Dogs killed	70
Fire alarms given	47
Fires extinguished without alarm	24
Intoxicated persons assisted home	2
Lost children restored	251
Sick and injured persons assisted	48
Stray teams put up	86
Street obstructions removed	17
Streets made safe	1

City Property in Use by Police Department.

115 badges, new	$101 80
104 badges, old	50 00
87 belts and billies	108 00
8 books	26 00
3 bookcases	20 00
8 bedsteads	40 00
Bedding and blankets	40 00
1 buggy	75 00
2 bureaus	3 00
8 clocks	25 00
80 chairs	100 00
4 carpets	50 00
2 copying machines	20 00
250 copies of police rules	40 00
11 desks	125 00
1 easy chair (matrons)	10 00
4 flags	60 00
5 horses	500 00
6 harnesses	120 00
5 horse blankets	15 00
4 halters	1 00
1 hat rack	50
6 inkstands	3 00
36 lanterns	27 00
Amount carried forward	$1,560 30

Amount brought forward	$1,560 30
1 letter scale	75
2 lounges	10 00
8 mirrors	14 00
3 maps	15 00
10 mats	10 00
9 pairs of handcuffs	27 00
1 police van	300 00
1 Ambulance	400 00
3 police signal systems	12,000 00
3 patrol wagons	1,000 00
93 revolvers	450 00
Ropes and stakes	10 00
3 robes (carriage)	20 00
1 rogues' gallery	150 00
3 saddles and bridles	12 00
1 safe	200 00
95 short billies	42 50
8 spittoons	2 00
1 sleigh	25 00
1 stove	8 00
2 straps and weights	1 00
4 stretchers	6 00
1 telephone line	300 00
3 thermometers	1 50
6 tables	24 00
40 tin dippers	9 00
25 towels	4 00
1 typewriter	140 00
2 umbrella stands	2 00
1 wagon van, old	25 00
5 waste baskets	1 00
4 water coolers	30 00
1 wardrobe	10 00
6 water pails	1 00
2 wagon jacks	2 00
Operating table and chair	37 50
Miscellaneous	10 00
	$16,860 55

Signal Systems.

In the three signal districts during the past year there have been:—

Duty calls by officers	355,571
Telephone calls	18,120
Wagon calls	1,600
Miles run	2,473$\frac{61}{100}$
To fires	63
Sick and injured persons carried to hospital	15
Sick and injured persons carried home	14
Other runs	72

Expenditures.

Boarding horses	$300 00
Buttons	70 00
Boat hire	8 00
Boston Ice Co.	27 00
Cambridge Gas Light Co.	1,132 78
Cambridge Electric Light Co.	48 00
Cleaning stations	160 00
Clipping horses	24 00
Cloth for department	684 65
Cap numbers	20 00
Directories for department	23 00
Diaries for department	80 48
Expressing	12 45
Expert evidence	5 00
Fresh Pond Ice Co.	26 76
Feeding prisoners	69 53
Hay and Grain	412 09
Horse hire	110 00
Medical attendance	19 00
Medicines	8 15
New England Telephone & Telegraph Co.	463 70
Photographs for rogues' gallery	18 00
Printing	184 18
Policemen, services of	97,853 31
Repairs on wagons	241 39
Repairs on harnesses	31 45
Repairs on revolvers	12 35
Amount carried forward	$102,045 27

Amount brought forward	$102,045 27
Salary of Chief of Police	1,800 00
Salary of Captains and Inspector	5,299 76
Shoeing horses	104 25
Supplies for stations	483 52
Supplies for signal system	137 69
Traveling expenses	40 65
West End Street R. R. Co. (tickets)	200 00
	$110,111 14
Appropriation	$112,000 00
Total cost of the department for the year	110,111 14
	$1,888 86
Transferred to other departments	1,500 00
Balance unexpended	$388 86
Expenditures	$110,111 14
Receipts	6,830 45
Balance showing actual cost	$103,280 69

In Memoriam.

The following members of the Police Department have died during the past year : —

Patrolman Hugh J. McNamee, September 14th; he was appointed March, 1874.

Patrolman Moses W. Hooper, September 26th; he was appointed October, 1866.

Captain Thomas H. Lucy, October 11th, he was appointed June, 1870.

The Force.

The organization of the force consists of a chief, three captains, one chief inspector with the rank of captain, eight sergeants, eighty-four patrolmen, four drivers of patrol wagons and two matrons.

Two sergeants and twenty-two patrolmen are on duty in the day-time ; one sergeant as court officer, and one sergeant at the Public Library ; one patrolman is stationed in the City Hall, one detailed as clerk at Police Headquarters, one detailed to assist the City Solicitor, one in Police Station 4, and eighteen for street duty.

During the night-time six sergeants and sixty-four patrolmen on duty; two as house officers in Stations 1 and 4, two in the wagon houses and sixty on street duty divided into two reliefs.

Changes.

During the year one inspector has been promoted to chief inspector with the rank of captain, one sergeant has been promoted to the rank of captain, one patrolman has been promoted to the rank of sergeant and five patrolmen appointed, all under the civil service rules.

No-License Law.

As in former years every effort has been made to prevent the illegal selling of intoxicating liquor; the so-called kitchen bar-rooms have been so far suppressed, that each year we find it more difficult to find places where evidence can be secured sufficient to get a conviction.

Matrons.

There have been two hundred and one (201) females arrested during the past year against two hundred and fifteen (215) last year; all of whom were placed in charge of the matrons.

Uniform Cloth for the Department.

There has been purchased during the year cloth for the department to the amount of $684.65; the money received for the same has been paid to the city treasurer. There is cloth on hand to the value of $134.00.

Recommendations.

I would respectfully recommend an increase of one officer to the department, to be placed in District 1, Ward 5.

I would renew my recommendation of last year that the cell-room in Police station 2 be remodeled by taking out the old brick cells and placing in their stead the improved iron cages, thereby giving seven additional cells, which are very much needed, as it is often necessary to put two, and sometimes three, in a cell together for want of room; this change will also give much better light and ventilation as well as additional cells.

I would also recommend the purchase of six additional signal boxes, to be placed in Districts 1 and 2.

Conclusion.

To those who have so kindly assisted me in my duties, I am exceedingly grateful. The members of the department, with few exceptions, have been faithful and conscientious in their duties, and to them I also wish to extend my appreciation of their endeavors.

LOTHROP J. CLOYES,
Chief of Police.

REPORT OF THE CHIEF ENGINEER OF THE FIRE DEPARTMENT.

Chief Engineer's Office, City Hall,
Cambridge, December 22, 1896.

To His Honor the Mayor and the City Council: —

Gentlemen: — In compliance with the provisions of Section 6 of the Ordinance governing the Fire Department, I herewith present my annual report for the fiscal year ending November 30, 1896, being the eighteenth annual report I have had the honor of presenting to the Honorable the City Council.

Manual Force.

During the latter part of the year a change was made in the membership of the department by reducing the number of call district chief engineers from three to two; also by reducing the number of men in Ladder Companies Number 1 and 2, from fourteen to twelve men each.

There were also three permanent men appointed who were assigned as laddermen, one to each ladder company.

The total force of the department, at the present time, consists of one hundred and twenty-six men, forty-six being permanently employed, and eighty being call men.

Apparatus.

Early in the year a new third-size "Amoskeag" engine was bought of the Manchester-Locomotive Works, of Manchester, N. H., and placed in Engine House, No 4.

The old Engine No. 4, which was greatly in need of repairs, was sent to the repair shop, was re-built and put in thorough working condition at a cost of $2000, as well as the old relief engine, which was of no service. It will now be used as a relief engine.

It was also found necessary during the year to provide Engine No. 2 with a new boiler, and make such other repairs on the engine as were required to put it in serviceable condition. The work was done at a cost of $1350.

The apparatus now in the service of this department is in general in good working condition. Such repairs as were thought necessary during the year, in order to keep it in serviceable condition, were made.

Hose.

During the year 600 feet of new two-and-one-half-inch cotton hose was bought to replace that which was condemned, and that which was destroyed at fires by being burnt. There is now in the service 13,250 feet of two-and-one-half-inch cotton hose in serviceable condition. Also 700 feet of 1 inch rubber and 300 feet of cotton hose for use on chemical engines.

Hydrants.

The total number of hydrants now available for fire purposes is 918.

Horses.

Since my last report four horses were bought. One was sold on account of old age, one sold on account of lameness, in exchange for another horse, and two died. There are now thirty-five horses in the service of this department, and with few exceptions are in good condition.

Houses.

The new house built for Engine Co., No. 3, on the corner of Third and Gore Streets, East Cambridge, was turned over to this department on January 9, the company taking possession on January 31.

The house on Massachusetts Avenue, North Cambridge, to be occupied by Engine Co., No. 4, was completed and turned over to this department on October 21. The company moved into their new quarters on November 20.

Appropriations and Expenditures.

The amount of the appropriation for the maintenance of this department for the fiscal year ending November 30, was $85,500. The principal items of expenditures were as follows: —

Apparatus, new	$3,500 00
Apparatus, repairs of	4,301 70
Furniture and bedding	743 05
Fuel for engines and houses	2,255 17
Gas and electric light	1,154 65
Hay, grain and straw	3,894 97
Harnesses and repairs of	351 20
Horses	720.00
Horse hire and men (extra)	791 50
Horse-shoeing	804 00
Hose, and repairs of	1,425 03
Pay roll	64,202 86
Other expenses	1,323 75
Total	$85,467 88
Balance unexpended	32 12

Fires and Alarms.

The whole number of fires and alarms during the year, not including second, third and general alarms, was 259. Of this number 202 were bell alarms and 57 were still alarms. Four of the alarms were given for fires out of the City.

During the early part of the year the department was frequently called upon to extinguish fires that were of incendiary origin. Later two young men, residents of this city, were apprehended and confessed to having set a number of the fires, which included schoolhouses, lumber-sheds, store-houses and places of business, causing a loss to property of more than $180,000.

The most destructive fire during the year was caused by the burning of the Boston Bridge Works, on Sixth street, which caused a loss of nearly $135,000.

The total loss by fires during the year as near as could be ascertained, together with the amount of insurance, and the amount of insurance paid, was as follows: —

	Losses,	Insurance.	Insurance Paid.
On Buildings.......... ..	$131,674 75	$462,433 00	$100,352 51
On Contents.............	242,391 83	523,422 61	216,523 34
Totals...............	$374,066 58	$985,855 61	$316,875 85

Appointments and Discharges.

Robert J. Buchanan was appointed a callman June 30, was assigned to Ladder Company No. 1.

Captain William F. Stearns of Engine Company No. 7 resigned October 12.

Albert R. Wait, appointed a permanent member, October 13, assigned to Ladder Company No. 2.

Lieutenant George A. Garrity of Engine Company No. 7, was appointed Captain, October 27.

Joseph A. Wood was appointed lieutenant of Engine Company No. 7, October 27.

District Chief Engineer Charles W. Bracket resigned October 31.

John J. O'Callahan was appointed a permanent member, November 10, assigned to Engine Company No. 6.

Edward F. Conroy was appointed a permanent member, November 10, assigned to Ladder Company No. 1.

William C. Richardson was appointed a permanent member November 10, assigned to Ladder Company No. 3.

Decease of a Member.

Mr. Charles H. Chapman, after a lingering illness of several months with paralysis died on July 11. He was appointed a member of this department on January 10, 1877, serving as a callman until April 14, 1891, at which time he was appointed to a permanent position, and was assigned as driver of Engine No. 6, which position he held at the time of his death.

Casualties.

Engine Company No. 1.

James Jefferson, foot injured by a horse stepping upon it, January 21. Off duty 11 days.

Engine Company No. 2.

George F. Donovan, leg broken by a falling building, January 28. Off duty 117 days.

Engine Company No. 3.

Patrick F. Dunlea, cut and bruised by falling building, January 28. Off duty 11 days.

Engine Company No. 4.

Redmond M. Burke, severely cut and bruised by falling walls, February 11. Off duty 50 days.

Engine Company No. 5.

George W. Stevens, hand severely cut by falling glass, January 13. Off duty 14 days.

Engine Company No. 7.

Edward Clark, thumb-nail pulled off with hay hook, March 28. Off duty 21 days.

Chemical Engine Company No. 1.

James T. McCabe, feet severely burnt by getting lime into boots, January 21. Off duty 33 days.

Ladder Company No. 2.

James T. O'Neil, hands burnt with lime, January 21. Off duty 7 days.

Albert Smith, strained his back, January 21. Off duty 12 days.

Charles H. Leddy, hands burnt with lime January 21. Off duty 25 days.

Jeremiah F. Hayes, run a nail into hand, November 7. Off duty 6 days.

On two occasions during the year the department was summoned to extinguish fires in dwellings which were caused by the upsetting of lighted kerosene oil lamps, and which also caused the death of two persons by their clothes catching fire. Their names and addresses are as follows: —

Mrs. Mary J. Ward, 84 Tremont Street, fatally burnt on December 10, 1895.

Mrs. Nancy G. Burns, 235½ Broadway, fatally burnt on October 31, 1896.

Conclusion.

In closing this report I desire to acknowledge valuable assistance rendered by the Boston Fire Department, and also by the Somerville Fire Department, at fires in this City during the year.

Respectfully submitted,

THOMAS J. CASEY,
Chief Engineer.

APPENDIX.

ROLL OF OFFICERS AND MEMBERS.

Engineers.

Name.	Rank.	Age.	Residence.
Permanent Force.			
Thomas J. Casey	Chief Engineer....	63	449 Cambridge Street
Call Force.			
Nathaniel W. Bunker ...	Dist.Chief Engineer	53	1696 Massachusetts Av.
William B. Cade........	" " "	62	27 Park Street.
Permanent Force.			
James M. Casey	Chief Driver.......	32	775 Cambridge Street

Engine Company No. 1.

House, Brattle Square.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
1	Edward E. Priest...	Engineman	59	96 Winthrop Street
31	Daniel E. Powers...	Asst.Engineman	37	37 Ash Street
2	Hiram W. Hooker..	Driver...	57	Engine House
28	Daniel E. Shea......	"	40	54 Banks Street
	Call Force.			
27	John L. Jones, Jr...	Captain	45	209 Green Street
29	Thomas H.Kneeland	Lieutenant......	33	17 Eliot Street
25	James Jefferson.....	Hoseman	43	9 Eliot Street
30	John W. Johnston..	"	26	23 Park Street
23	J. Joseph Corcoran.	"	36	5 Hews Street
26	Walter E. Chapman.	"	29	52 Boylston Street
74	James W. Irwin.....	"	41	82½ Concord Avenue
65	Augustin B. Osborn.	"	37	99 Mt. Auburn Street

Engine Company No. 2.

House, Massachusetts Avenue.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
41	William H. Cairns...	Engineman	33	9 Sidney Street
80	John H. McDermott	Asst.Engineman	46	11 Dodge Street
114	Angus H. McDonald	Driver	26	Engine House
6	Albert F. Sawyer ...	"	53	14 Sidney Street
	Call Force.			
32	James Cunningham.	Captain....... .	54	25 State Street
33	Arthur C. Day......	Lieutenant......	59	47 Austin Street
35	Benjamin D. Foss...	Hoseman.......	60	28 Elm Street
37	John Haley.........	"	42	344 Massachusetts Av.
88	Charles H. Cutting..	"	43	6 Harold Place
40	George F. Donovan.	"	27	54 Sidney Street
78	William R. Mitchell.	"	43	3 Plympton Place
107	William H. Hanson.	"	29	359 Winsor Street

Engine Company No. 3.

House, Third Street.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
7	Hiram Blood........	Engineman	64	40 Fifth Street
62	Charles A. Blair....	Asst.Engineman	35	239 Hampshire Street
8	Peter F. McSorley..	Driver	37	33 Fourth Street
49	Patrick J. Hayes....	"	33	92 Gore Street
	Call Force.			
42	Walter Baker.......	Captain....... ..	42	91 Gore Street
48	John F. Brassel.....	Lieutenant......	40	261 Portland Street
45	Eliot E. Alley......	Hoseman.......	60	73 Thorndike Street
46	Timothy J.Mahoney	"	48	346 Vine Street
15	Patrick F. Dunlea...	"	35	331 Vine Street
115	Frank McGrath.....	"	32	47 Willow Street
16	Thomas H. McCourt	"	25	201 Charles Street
116	Dennis F. Courtney	"	27	231 Charles Street

Engine Company No. 4.

House, Massachusetts Avenue.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
10	John E. Ricker	Engineman	52	2021 Massachusetts Av
55	Jeremiah O'Connor	Asst.Engineman	38	2 Olive Place
11	George E. Muzzey	Driver	54	9 Blake Street
12	Sylvanus G. Griffin	"	49	6 Sycamore Street
	Call Force.			
50	George F. Tibbetts	Captain	56	4 Tenney Street
51	Daniel McCaughin	Lieutenant	36	Rear 5 Russell Street
56	Josiah P. Parsons	Hoseman	48	17 Regent Street
54	George F. Durgin	"	28	12 Regent Street
53	Redmond M. Burke	"	27	37 Jackson Street
57	John F. Henderson	"	27	51 Reed Street
105	Patrick F.Brosnahan	"	27	140 Rindge Avenue
52	Joseph T. Vocell	Substitute	31	12 Bolton Street

Engine Company No. 5.

House, Inman Square.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
13	Charles E. Conner	Engineman	45	1337 Cambridge Street
9	Lorenzo H. Dale	Asst.Engineman	53	104 Otis Street
3	Charles R. Hooker	Driver	51	9 Springfield Street
68	James H. Furfey	"	39	59 Prince Street
	Call Force.			
59	Francis P. Scanlan	Captain	50	1343 Cambridge Street
64	William T. King	Lieutenant	40	100½ Hampshire St.
61	George W. McIntire	Hoseman	42	70 Inman Street
67	George P. Banister	"	36	46 Clark Street
66	James H. McGrath	"	39	1072 Cambridge Street
60	George W. Stevens	"	30	1307 Cambridge Street
104	Charles Barney	"	34	1307 Cambridge Street
63	Geo. W.Montgomery	"	36	40 Hampshire Street

Engine Company No. 6.

House, River Street.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
98	J. Lewis Howe.....	Engineman.....	43	184 River Street
87	Charles A. Cairns...	Asst.Engineman	30	152 River Street
127	John J. O'Callahan..	Driver..........	27	150 Hampshire Street
34	William Parks......	"	52	208 River Street
	Call Force.			
24	John H. Brown.....	Captain	45	206 River Street
101	John H. Robbins....	Lieutenant.....	41	78 Franklin Street
100	John E. Savage.....	Hoseman	42	13 Dodge Street
102	Melvin A. Priest ...	"	39	16 Fairmont Street
73	Charles H. Waite ...	"	40	45 Auburn Street
106	James P. Welsh.....	"	33	38 State Street
75	Charles A. Olson....	"	29	346 Massachusetts Av.
123	Sidney Smith.	"	25	65½ Western Avenue

Engine Company No. 7.

House, Main Street.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
4	Thomas Wiseman...	Engineman.....	52	416 Main Street
5	John H. Walker....	Asst.Engineman	67	3 Williams Street
85	Thomas F.O'Connell	Driver.........	34	51 Ninth Street
36	John McCarthy.....	"	46	34 Mt. Auburn Street
	Call Force.			
93	George A. Garrity..	Captain.........	35	5 Pioneer Street
124	Joseph A. Wood....	Lieutenant......	34	79 Hampshire Street
109	James E. Bligh.....	Hoseman	25	23 Willow Street
108	Thos.A.Montgomery	"	32	46 Cherry Street
126	Dennis R. Sullivan..	"	25	35 Harvard Street
125	Edward Clark.......	"	28	234 Windsor Street
86	James H. Skehan...	"	26	4 Washington Street
96	Louis J. Anshelm...	"	36	55 Hampshire Street

Chemical Engine Company No. 1.

House, Western Avenue.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
17	Lewis C. Clark.. ...	Engineman	52	10 Western Avenue
82	James T. McCabe...	Asst. Engineman	34	39 Green Street
99	John H. Dardis.....	Driver	26	66 Pleasant Street

Chemical Engine Company No. 2.

House, Lexington Avenue.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
94	George W. Butler...	Engineman	54	171 Lake View Avenue
58	William H. Barrow.	Asst. Engineman	27	182 Lake View Avenue
18	William Haley......	Driver	48	133 Lexington Avenue

Ladder Company No. 1.

House, Eliot Square.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
22	John T. McNamee..	Captain....... .	41	49 Mt. Auburn Street
19	Albert S. Benson....	Driver	53	52 Boylston Street...
117	Edward F. Conroy..	Ladderman	25	259 Mt. Auburn Street
	Call Force.			
70	Thomas H. Donlan..	Lieutenant......	35	Ladder House No. 1
77	William Stolba......	Ladderman	39	17 DeWolf Street
79	Edward P. Donahue	"	39	1 Willard Street Ct.
72	Joseph E. Burke....	"	33	7 Mill Street
71	Willard H. Poole...	"	38	150 River Street
14	William H. Buchanan	"	28	8 Eliot Street
121	John D. Shea.......	"	25	5 Dyke Street
122	Arthur G. McArthur	"	24	53 Magee Street
92	Robert J. Buchanan.	"	25	8½ Brewer Street

Ladder Company No. 2.

House, Portland Street.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
43	William F. Newman	Captain.........	50	42 Winter Street
20	Thomas Mimnaugh..	Driver	43	29 Warren Street
38	Albert R. Wait......	Ladderman... .	24	Ladder House, No. 2
	Call Force.			
81	James F. Dalton ...	Lieutenant......	57	17 Squire's Court
91	Lincoln E. Wheeler.	Ladderman.....	52	48 Cherry Street
90	Albert Smith.......	"	42	3 Suffolk Street
84	John B. Maguire....	"	37	148 Bridge Street
95	Louis J. Stanger....	"	40	275 Vine Street
89	John J. Balfe.......	"	25	34 Porter Street
110	James P. O'Neil....	" . .	29	96 Fifth Street
111	Jeremiah F. Hayes..	"	30	106 Spring Street
112	Charles H. Leddy...	"	36	89 Gore Street

Ladder Company No. 3.

House, Massachusetts Avenue.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
21	Thomas L. Hunter..	Captain.........	56	407 Massachusetts Av.
44	Cutler L. Vose......	Driver	28	473 Main Street
47	Exurie J. Ouimette.	Tillerman	33	456 Massachusetts Av.
118	Wm. C. Richardson.	Ladderman......	28	8½ Perry Street
	Call Force.			
69	Charles Emerson....	Lieutenant......	51	5 Kinnaird Street
76	Charles A. Sharon..	Ladderman.....	48	Rear 13 Pine Street
113	William Johnson...	"	35	108½ Inman Street
119	Robert J. Ballantine	"	35	25 Hancock Street

FIRES AND ALARMS.

From December 1, 1895, to December 1, 1896.

DECEMBER.

Monday, Dec. 2, 5.55 a. m. Box 13.

No. 103 Gore Street. Owned by F. A. Wilmot. Loss, $50. Insurance, $20,000. Occupied by W. C. Linnell as dwelling. Loss, $88. Insurance, $500. [Originated in a clothes-closet. Supposed cause, mice and matches.

Tuesday, Dec. 3, 7.03 p. m. Box 26.

No. 379 Main Street. Cause, smoke mistaken for fire.

Sunday, Dec. 8, 3.39 a. m. Box 26.

No. 80 Clark Street. Owned by Mrs. H. A. Rice. Loss, $30. Insurance, $2,500. Occupied by Ellen Moran as dwelling. Loss, $75. Insurance, $1,000. Originated in an attic chamber. Cause, explosion of a kerosene oil lamp.

Tuesday, Dec. 10, 5.45 p. m. Box 134.

No. 84 Tremont Street. Owned by Estate of B. B. Myers. Loss, trifling. Occupied by J. B. Ward as dwelling. Loss, $50. Insurance, $500. Cause, child upsetting a kerosene oil lamp.

Tuesday, Dec. 10, 8.30 p. m. Still.

No. 631 Massachusetts Avenue. Owned by D. W. Hyde. Occupied by W. A. Mason & Son as civil engineers. Loss, trifling. Originated in a closet. Supposed cause, mice and matches.

Wednesday, Dec. 11, 12.05 a. m. Box 2.

Prison Point Street, Boston & Maine Railroad freight yard. Charcoal in freight car. Loss, trifling. Cause, spark from locomotive.

Thursday, Dec. 12, 10.01 a. m. Box 64.

No. 53 Garden Street. Owned and occupied by C. C. Everett as dwelling. No loss. Cause, soot in chimney taking fire.

Friday, Dec. 13, 3.15 a. m. Still.

Lechmere Square. Owned by Jeremiah Carew. Occupied by Annie McDonald as dwelling. Loss, trifling. Cause, thawing out water-pipe.

Sunday, Dec. 15, 6.53 p. m. Box 153.

No. 25 Dyke Street. Owned by L. P. Blakie. Occupied by Charles Callahan as dwelling. No loss. Originated in the cellar. Cause, incendiary.

Monday, Dec. 16, 4.39 p. m. Box 71.

Brookfield Street. Owned and occupied by F. L. Sawyer & Co. as planing mill. Loss trifling. Cause, dust on steam pipes taking fire.

Tuesday, Dec. 17, 7.40 p. m. Still.

No. 4 Coolidge Place. Owned by G. M. Rogers estate. Loss trifling. Occupied by F. A. Sandeen as dwelling. Loss, $100. Insurance, $300. Cause, hot coals dropping from stove.

Tuesday, Dec. 17, 11.20 p. m. Box 31.

No. 220 Portland Street. Owned by Edmund Reardon. Occupied by J. C. Dow & Co. as storehouse. No loss. Originated on outside of the building. Cause, incendiary.

Saturday, Dec. 21, 3 p. m. Still.

No. 79 Boylston Street. Owned by Patrick Moran. Occupied by several families as dwellings. No loss. Cause, soot in chimney taking fire.

Sunday, Dec. 22, 7.45 a. m. Still.

No. 135 Inman Street. Owned by S. L. Montague. Occupied by L. B. Butler as bakery. Loss, trifling. Originated in floor timbers around the oven. Cause, overheated.

Sunday, Dec. 22, 4.25 p. m. Still.

Fire in Stock Yard, Boston. Brighton District Engine Company No. 1 rendered assistance.

Tuesday, Dec. 24, 9.44 p. m. Box 36.

No. 18 Western Avenue. Owned by G. R. Southwick. Loss, $15. Insurance, $1,000. Occupied by J. Frank Facey as printer. Loss, $8. Insurance, $3,500. Originated in paper in entry on second floor. Cause, incendiary.

Wednesday, Dec. 25, 2.53 p. m. Box 15.

Sixth Street. Owned by Alden Speare & Sons. Loss, trifling. Occupied by Alden Speare & Sons as storehouse. Loss, $67. Insurance, $11,875. Cause, incendiary.

Wednesday, Dec. 25, 5.40 p. m. Box 16.

Pelham Street. Owned by H. M. Bird estate. Loss, $460. Insurance, $1,400. Occupied by H. M. Bird estate. Loss, $150. Insurance, $800. Originated in carpenter shop on second floor. Cause, incendiary.

Wednesday, Dec. 25, 7.05 p. m. Box 16.

Pelham Street. Owned and occupied by H. M. Bird estate as pattern room. Loss, trifling. Cause, incendiary.

Friday, Dec. 27, 3.17 p. m. Box 64.

No. 51 Wallace Street. Owned by J. J. Sullivan. Occupied by E. T. Nichols as dwelling. Loss, trifling. Cause, explosion of kerosene oil stove.

Tuesday, Dec. 31, 6.36 a. m. Box 63.

No. 1 Bradbury Street. Owned by Charles Moore. Occupied as dwelling. No loss. Cause, soot in chimney taking fire.

Tuesday, Dec. 31, 8.50 p. m. Box 31.

No. 311 Portland Street. Owned by Henry Green, as unfinished dwelling. Loss, $515. Insurance, $1,000.

No. 313 Portland Street. Owned by Henry Green as unfinished dwelling. Loss, $122. Insurance, $1,000. Originated in No. 311. Cause, incendiary.

Tuesday, Dec. 31, 10 p. m. Box 61.

No. 95 Mt. Auburn Street. Owned by Estate of William Read. Loss, $590. Insurance, $6,000. Occupied by Rose A. Lappin as dwelling. Loss, $1,500. Insurance, $2,000. Originated on first floor. Cause, overheated furnace pipes.

JANUARY

Wednesday, Jan. 1, 7.44 p. m. Box 26.

Nos. 12–14 Osborn Street. Owned by Allen & Endicott Building Association. Loss, trifling. Occupied by Standard Brass Co. as brass works. Loss, $58. Insurance, $40,000. Originated in cotton waste on second floor. Cause, sparks from a hot pulley.

Wednesday, Jan. 1, 10.59 p. m. Box 73.

Clifton Street. Owned by Annie Gustafson. Loss, $811. Insurance, $3,000. Occupied by M. A. L. Gray as dwelling. Loss, $25. Insurance, $500. Originated around the chimney on second floor. Cause, unknown.

Friday, Jan. 3, 12.48 p. m. Box 79.

No. 25 Sparks Street. Owned and occupied by James Gallivan as dwelling. No loss. Cause, child and matches.

Saturday, Jan. 4, 9.24 a. m. Box 42.

No. 4 Riverside Place. Owned by Elder & Wait. Loss, $46. Insurance, $1,000. Occupied by J. A. Sampson as dwelling. Loss, trifling. Originated on the roof. Cause, sparks from chimney.

Monday, Jan. 6, 4.29 p. m. Box 26.

No. 8 Portland Street. Owned by G. M. Rogers estate. Loss, trifling. Occupied by Annie Langan as dry goods. Loss, $50. Insurance, $600. Cause, top of a match while lighting it flying into cotton batting and setting it afire.

Tuesday, Jan. 7, 12.42 p. m. Box 16.

No. 22 Harvard Street. Owned by Mary Rourke. No loss. Occupied by Martin Fay as dwelling. Loss, $45. Insurance, $300. Originated in a lounge. Cause, child and matches.

Tuesday, Jan. 7, 2.50 p. m. Box 32.

No. 116 Webster Avenue. Owned by Heffernan Bros. Occupied by several families as dwellings. No loss. Cause, thawing out water-pipe.

Friday, Jan. 10, 8.24 a. m. Box 42.

No. 201 Putnam Avenue. Owned by T. G. Clarkson. Loss, trifling. Occupied by C. W. Lovering as dwelling. Loss, $25. No insurance. Originated in a lounge. Cause, child and lighted paper.

Friday, Jan. 10, 12.10 p. m. Box 29.

Plymouth Street. Cause, smoke mistaken for fire.

Saturday, Jan. 11, 3 p. m. Still.

No. 72 Boylston Street. Owned and occupied by Kennison & Payson as night lunch-wagon. Loss, trifling. Cause, kerosene stove taking fire.

Sunday, Jan. 12, 12.36 a. m. Box 42.

No. 111 Western Avenue. Owned by S. A. Dyme. Loss, $93. Insurance, 4,000. Occupied by C. V. Hamilton as dwelling. No loss. Originated in a partition back of sink on third floor. Cause unknown.

Sunday, Jan. 12, 11.54 a. m. Box 78.

No. 5 Madison Street. Owned by Catherine Normoyle. Loss, $30. Insurance, $2,000. Occupied by Annie Madigan as dwelling. Loss, $40. No insurance. Cause, bedclothes on a chair near stove taking fire.

Sunday, Jan. 12, 1.13 p. m. Box 17.

No. 62 Harvard Street. Owned by Joseph Jerome. Loss, $75. Insurance, $1,800. Occupied by Joseph Jerome as dwelling. Loss, $100. Insurance, $500. Originated in a bedroom on first floor in L. Cause, overheated stove.

Sunday, Jan. 12, 3.45 p. m. Box 16.

Pelham Street. Cause, smoke mistaken for fire.

Monday, Jan. 13, 5.23 p. m. Box 31.

No. 777 Cambridge Street. Owned by N. G. Shannon. Loss, $302. Insurance, $6,436. Occupied by Cordelia Ouimet as dwelling and millinery store. Loss, $680. Insurance, $1,000. Cause, dropping of a lighted kerosene oil lamp.

Monday, Jan. 13, 5.47 p. m. Box 415.

Sixth Street. Owned and occupied by Standard Oil Co. as stable. Loss, trifling. Cause, breaking of a lighted lantern.

Monday, Jan. 13, 8.57 p. m. Box 25.

Austin Street. Owned by Wood Memorial Church Society. Loss, $190. Insurance, $15,000. Occupied by Wood Memorial Church Society as church. Loss, $150. Insurance, $3,200. Originated in the gallery. Cause, incendiary.

Monday, Jan. 13, 9.08 p. m. Box 32.

No. 1041 Cambridge Street. Owned by Heffernan Bros. Loss, $450. Insurance, $2,500. Occupied by M. E. Murray as dry goods store. Loss, $1,069. Insurance, $2,940. Originated under a counter. Cause, unknown.

Tuesday, Jan. 14, 5.14 a. m. Box 32.

No. 1041 Cambridge Street. Cause, rekindling of fire.

Wednesday, Jan. 15, 3.46 a. m. Box 4.

No. 731 Cambridge Street. Owned by James Buckley. Loss, $120. Insurance, $4,000. Occupied by W. H. Murray as provision store. Loss, $271. Insurance, $800. Cause, rats and matches.

Wednesday, Jan. 15, 8.30 a. m. Still.

First Street. Owned and occupied by Coleman Bros. as coal wharf· Originated in pile of soft coal. Cause, spontaneous combustion.

Wednesday, Jan. 15, 6.09 p. m. Box 52.

No. 20 Trowbridge Street. Owned by E. N. Horsford estate. Loss, $650. Insurance, $5,000. Occupied by A. T. Auerbach as dwelling. Loss, $2,438. Insurance, $4,000. Originated on second floor. Cause, upsetting of a kerosene oil lamp.

Wednesday, Jan. 15, 7.42 p. m. Box 28.

No. 131 Portland Street. Owned and occupied by M. F. Hillery as dwelling. Loss, trifling. Originated in cellar. Cause, lounge taking fire from a torch.

Thursday, Jan. 16, 3.35 p. m. Box 135.

No. 38 Lee Street. Owned by W. H. Wood. Loss, $56. Insurance' $2,500. Occupied by J. W. Bradley. No loss. Originated on first floor. Cause, defective fire place.

Thursday, Jan. 16, 6.09 p. m. Box 34.

No. 330 Columbia Street. Steam mistaken for fire Cause, drying plastering.

Thursday, Jan. 16, 6.45 p. m. Still.

No. 239 Main Street. Owned and occupied by John Purcell as dwelling. No loss. Cause, soot in chimney afire.

Friday, Jan. 17, 9.45 p. m. Box 32.

Columbia Street. Owned and occupied by City of Cambridge as school house, old Gannet. Loss, $300. No insurance. Originated in the floor over the furnace. Supposed caused by sparks.

Saturday, Jan. 18, 1.38 p. m. Box 45.

No. 162 Franklin Street. Owned by Patrick Sullivan. Loss, $100. Insurance, $2,000. Occupied by James O'Neil as dwelling. Loss. $75. No insurance. Originated in clothes-closet on second floor. Cause, child and matches.

Tuesday, Jan. 21, 8.54–8.58–9.16 p. m. Box 26.

No. 336 Main Street. Owned by Geo. W. Gale Lumber Co. Loss, $8,455. Insurance, $13,400. Occupied by Geo. W. Gale Lumber Co. as lumber yard. Loss, $20,886. Insurance, $45,000. Owned by Boston & Albany Railroad Co. as freight cars. Loss, $1,000. Insurance, $1,000. Cause, incendiary.

Tuesday, Jan. 21, 11.40 p. m. Box 48.

No. 21 Cleary Street. Owned by Geo. Champlin & Co. as dwelling, being constructed. Loss, $1,000. No insurance.

Rear No. 21 Cleary Street. Owned by A. C. Curtis. Loss, $900. Insurance, $1,000. Occupied by A. C. Curtis as stable. Loss, $700. No insurance.

No. 19 Cleary Street. Owned by G. S. Cunningham. Loss, $682. Insurance, $1,800. Occupied by G. S. Cunningham as dwelling. Loss, $300. Insurance, $400. Occupied by G. S. Cunningham as stable. Loss, $20. Insurance, $200. Originated in new building. Cause, incendiary.

Wednesday, Jan. 22, 11.19 a. m. Box 426.

No. 336 Main Street. Cause, rekindling of fire.

Thursday, Jan. 23, 9.07 a. m. Box 36.

No. 8 Western Avenue. Owned by G. R. Southwick. Loss, trifling. Occupied by F. C. Garth as photographer. Loss, $50. Insurance, $100. Originated on second floor. Cause, spontaneous combustion.

Thursday, Jan. 23, 9.28 p. m. Box 153.

No. 8 Dyke Street. Owned by City of Cambridge, Park Dept. Loss, $100. No insurance. Occupied by John Nesbit as carpenter. Loss, $100. No insurance. Originated on second floor. Cause, unknown.

Tuesday, Jan. 28, 10.42 a. m. Box 9.

No. 25½ Gore Street. Owned by C. E. Randell. Loss, $54. Insurance, $4,000. Occupied by several families as dwellings. No loss. Cause, thawing out water-pipe.

Tuesday, Jan. 28, 8.54 p. m. Box 6.

No. 13 Broadway. Owned by Josiah Burrage estate. Loss, $1,210. Insurance, $2,700. Occupied by W. H. Wood & Co. as lumber-yard. Loss, $6,237. Insurance, $6,237. Cause, incendiary.

Thursday, Jan. 30, 10 a. m. Still.

No. 12 Williams Street. Owned by J. W. Park. Loss, trifling. Occupied by Cordelia Sawyer as dwelling. Originated on the roof. Cause, sparks.

Thursday, Jan. 30, 9.03 p. m. Box 126.

Pine Street. Cause, false alarm given by some malicious person.

Friday, Jan. 31, 3.57 p. m. Box 12.

No. 55 North Street. Owned by J. J. Babbin. Loss, $8. Insurance, $1,500. Occupied by Luke Masterson as dwelling. Loss, trifling. Cause, blanket near stove taking fire.

FEBRUARY.

Sunday, Feb. 2, 4.40 p. m. Still.

Ninth Street. Freight yard of Boston & Albany Railroad Co. Car of hay consigned to Merrill & Glazier. Loss, $85. Insurance, $85. Cause, incendiary.

Monday, Feb. 3, 1.30 p. m. Still.

Larch Street. Owned by E. T. Swift as unfinished dwelling. Originated in cellar. Cause, fire dropping through opening in chimney.

Wednesday, Feb. 5, 10.04 p. m. Box 134.

Hampshire Street. Cause, false alarm given by some malicious person.

Thursday, Feb. 6, 12.35 p. m. Still.

No. 286 Main Street. Ivers & Pond's piano manufactory. Automatic alarm. Cause, bursting of a steam pipe.

Friday, Feb. 7, 8.58 p. m. Box 152.

No. 1234 Massachusetts Avenue. Owned by John Holmes. No loss. Occupied by E. W. White as dentist. Loss, trifling. Originated in an upholstered chair. Cause, unknown.

Sunday, Feb. 9, 12.43 a. m. Box 153.

No. 14 Mill Street. Owned and occupied by Michael O'Sullivan as shed and dwelling. Loss on shed, $25. No insurance. Loss on dwelling, $20. Insurance, $1,250. Originated in shed. Cause, unknown.

Tuesday, Feb. 11, 9.07–9.11–9.19 p. m. Box 26.

Albany Street. Owned by the Allen & Endicott Building Association. Loss, $32,000. Insurance, $10,000. Occupied by Boston Woven Hose & Rubber Co. as storage. Loss, $10,000. No insurance.

No. 20 Albany Street. Owned by E. G. Johnston. Loss, $1,921. Insurance, $22,500. Occupied by W. C. H. Badger & Co. Loss, $19,028. Insurance, $50,000. Originated in the Allen & Endicott building. Cause, incendiary.

Friday, Feb. 14, 1.06 p. m. Box 68.

No. 1862 Massachusetts Avenue. Owned by C. A. Whitney. Occupied by F. S. Buckland as dwelling. Loss, trifling. Originated in woodbox behind stove. Cause, unknown.

Saturday, Feb. 15, 6.47 p. m. Box 126.

Pine Street. Cause, false alarm given by some malicious person.

Sunday, Feb. 16, 9.48 p. m. Box 26.

No. 387 Main Street. Cause, smoke mistaken for fire.

Monday, Feb. 17, 7.08 p. m. Box 13.

No. 320 Cambridge Street. Owned by E. J. Hartwell. No loss. Occupied by Joseph Bonapart as fruit store. Loss, $5. Insurance, $300. Cause, gasoline lamp taking fire.

Monday, Feb. 17, 7.42 p. m. Box 23.

No. 3 Rollins Court. Occupied by James Adams as dwelling. No loss. Cause, soot in chimney afire.

Thursday, Feb. 20, 10.16 p. m. Box 27.

Boardman Street. Owned by The City of Cambridge as school house. Loss, $300. No insurance. Originated on 3rd floor in master's office. Cause, incendiary.

Monday, Feb. 24, 5.48 p. m. Box 149.

Baldwin Street. Owned by George Francis. Loss, $100. No insurance. Occupied by Sullivan & McGrath as grocers. Loss, $287. Insurance, $600. Cause, falling of a hanging kerosene oil lamp.

Tuesday, Feb. 25, 8.30 a. m. Still.

Elm Street. Cause, tar kettle in street afire.

Tuesday, Feb. 25, 5.23 p. m. Box 27.

Moore Street. Owned by E. D. Brooks. Loss trifling. Occupied by Frank Anderson as dwelling. Loss, $20. No insurance. Cause, explosion of a kerosene oil stove.

Tuesday, Feb. 25, 5.47 p. m. Box 74.

No. 131 Sherman Street. Owned by Estate of Daniel Hayes as dwelling. No loss. Cause, soot in chimney afire.

Friday, Feb. 28, 12.34 p. m. Box 53.

No. 18 Holyoke Street. Owned by H. W. Buck. Loss, $10. Insurance, $1,500. Occupied by Kiner & Brown as clothes cleaning. Loss, $15. No insurance. Cause, ignition of naptha.

Friday, Feb. 28, 8.43 p. m. Box 59.

No. 32 Boylston Street. Owned by William Read estate. Loss, trifling. Occupied by L. L. Powers as furniture. Loss, $350. Insurance, $2,500. Originated in oiled rags on 2nd floor. Cause, spontaneous combustion.

Saturday, Feb. 29, 7.20 a. m. Box 34.

No. 333 Columbia Street. Owned by E. A. Cherest. Loss, $35. Insurance, $1200. Occupied by J. M. Lewis as dwelling. Loss, trifling. Originated in cloth which had been used to clean the stove. Cause, spontaneous combustion.

Saturday, Feb. 29, 9 a. m. Still.

Lansdowne Street. Grand stand Mass. Athletic Association. Originated on the roof. Loss, trifling. Cause, bucket of tar afire.

MARCH.

Sunday, March 1, 1.26 a. m. Box 25.

Rear 414 Main Street. Owned by M. A. Dow estate. Loss, $500. No insurance. Occupied by Robert Brown *et als.* as boarding stable. Loss, $2,259. Insurance, $3,970. Originated in the harness room. Cause, supposed by a blanket hanging near stove taking fire.

Monday, March 2, 10.04 p. m. Box 6.

No. 75 Main Street. Owned by E. H. Luke. Loss, $163. Insurance, $9,000. Occupied by Cambridge Vinegar Co. as vinegar manufactory. Loss, $755. Insurance, $6,000.

No. 77-99 Main Street. Occupied by Boston Woven Hose & Rubber Co. as storage. Loss, $1500. Insurance, $55,000. Originated in vinegar works on 4th floor. Cause, unknown.

Tuesday, March 3, 11.39 a. m. Box 24.

No. 28 Decatur Street. Owned by John Lennon estate. Loss, $17. Insurance, $2000. Occupied by Robert Alexander as dwelling. Loss, trifling. Originated in clothes closet on 2nd floor. Cause, child and matches.

Tuesday, March 3, 8.51 p. m. Box 126.

Pine Street. Cause, false alarm given by some malicious person.

Wednesday, March 4, 11.05 a. m. Box 35.

No. 281 Broadway. Owned by John Eadie. Loss, $50. No insurance. Occupied by John Eadie as grocery. Loss, $100. No insurance. Cause, explosion of kerosene oil lamp.

Thursday, March 5, 7.21 p. m. Box 29.

Webster Avenue. Cause, false alarm given by some malicious person.

Thursday, March 5, 10.23 p. m. Box 78.

No. 9 Donnell Street. Owned by Bernard McBride. Loss, $514. Insurance. $700. Occupied by Bernard McBride as dwelling. Loss, $600. Insurance, $300.

No. 7 Donnell Street. Owned and occupied by Patrick Fitzgerald heirs as dwelling. Loss, $38. Insurance, $1,000. Originated in No. 9. Cause, defective chimney.

Friday, March 6, 8.08 a. m. Box 216.

Ninth Street. Owned and occupied by American Rubber Co. as rubber goods manufactory. Loss, trifling. Originated in coat room on third floor. Cause, ignition of naphtha gas.

Sunday, March 8, 2.41–2.54 p. m. Box 32.

Foot of Winsor Street. Fire in Somerville. Owned by North Packing & Provision Co. Engines 2, 3, 5 and 6, chemical Engine 1 and Ladder 2 companies rendered assistance.

Sunday, March 8, 8 p. m. Box 7.

Second Street. Owned by American Net and Twine Co. Loss, $1,200. Insurance, $1,200. Occupied by American Net & Twine Co. Loss, $1,006. Insurance, $1,006. Originated in the taring room. Cause, unknown.

Friday, March 13, 5.45 p. m. Box 223.

No. 10 Franklin Street. Owned and occupied by Morss & Whyte as wire works. Loss, trifling. Originated in the roof. Cause, electric light wires.

Friday, March 20, 12.22 a. m. Box 12.

Rear of 165 Bridge Street. Owned by John Doherty estate. Loss, $150. No insurance. Occupied by Joseph Brown as dwelling. Loss, $685. Insurance, $800. Originated under the stairs on first floor. Cause, unknown.

Saturday, March 21, 6.20 p. m. Still.

No. 2 Winter Street. Owned by Charles Linehan. Loss, trifling. Occupied by Joseph Wassersug as dwelling. Loss, $8. Insurance, $600. Originated on first floor. Cause, upsetting of a kerosene oil lamp.

Tuesday, March 24, 8.45 a. m. Still.

No. 9 Brewer Street. Owned by N. S. Walton. Occupied by R. M. Furness as dwelling. No loss. Originated under the sink. Cause, thawing out water pipe.

Wednesday, March 25, 3.35 p. m. Still.

Murray Street. Owned and occupied by West End Railway Co. as wagon shed. Loss, trifling. Originated on the roof. Cause, sparks.

Saturday, March 28, 11. 42 a. m. Box 75.

No. 281 Walden Street. Owned and occupied by M. W. Sands as brick shed. Loss, $300. No insurance. Originated in the roof. Cause, sparks from kiln.

Saturday, March 28, 7.40 p. m. Still.

Ninth Street. Freight yard of Boston & Albany Railroad Co. Car of hay consigned to Merrill & Glazier. Loss on car and hay, $310. Insurance, $310. Cause, incendiary.

Monday, March 30, 10.37 p. m. Box 14.

No. 603 Cambridge Street. Owned by West End Railway Co. Loss, $367. Insurance, $5,000. Occupied by Boston Woven Hose & Rubber Co. as storage, $29,235. Insurance, $60,000. Originated on second floor. Cause, incendiary.

APRIL.

Wednesday, April 1, 8.26 a. m. Box 52.

No. 21 Ellery Street. Owned by C. H. Thurston. Loss, $2,402. Insurance, $10,000. Occupied by S. W. Eldridge *et als.* as dwellings. Loss, $1,010. Insurance, $6,800. Originated in a closet amongst oiled rags on second floor. Cause, spontaneous combustion.

Saturday, April 4, 4.41, p. m. Box 16.

No. 68 Broadway. Owned by Morss & Whyte. Occupied as dwellings. Loss, trifling. Originated on the roof. Cause, sparks from chimney.

Saturday, April 4, 8.40 p. m. Still.

No. 21 Williams Street. Owned and occupied by J. F. Farnham as dwelling. Loss, trifling. Originated on the roof. Cause, sparks from chimney.

Monday, April 6, 12.04 p. m. Box 27.

No. 169 Harvard Street. Owned by Dennis Brown. Loss, $25. Insurance, $3,000. Occupied by W. H. Frazier as apothecary. Loss, $46. Insurance, $1,600. Cause, ignition of camphorated oil.

Tuesday, April 7, 8.50 p. m. Box 32.

No. 503 Winsor Street. Owned by Sarah Dempsey. Occupied by William Norton as dwelling. Loss, trifling. Cause, upsetting of kerosene lamp.

Friday, April 10, 9.09 p. m. Box 6.

Third Street. Cause, false alarm given by some malicious person.

Friday, April 10, 10.03 p. m. Box 56.

Kirkland Street. Cause, false alarm given by some malicious person.

Sunday, April 12, 12.27 a. m. Box 25.

No. 433 Main Street. Owned by Fiske heirs. Loss, $150. Insurance, $1,600. Occupied by C. J. Moore as clothes cleaner. Loss, $325. Insurance, $500. Basement occupied by Fred J. Row as storage. Loss, $97. Insurance, $2,300. Originated under the stairs on first floor. Cause, unknown.

Sunday, April 12, 9.37 a. m. Box 54.

No. 12 Oxford Street. Owned and occupied by J. W. Emery as shed. Loss, trifling. Cause, grass burning.

Sunday, April 12, 10.24 a. m. Box 35.

No. 49 Norfolk Street. Owned by G. M. Rogers estate. Loss, $18. Insurance, $4,000. Occupied by M. M. Rogers as dwelling. Loss, $25. Insurance, $1,000. Originated on second floor. Cause, top of a lighted match flying into lace curtain.

Sunday, April 12, 11.00 a. m. Still.

Raymond Street. Cause, burning grass.

Monday, April 13, 8.41 a. m. Box 14.

No. 600 Cambridge Street. Smoke mistaken for fire. Cause, smoky chimney.

Monday, April 13, 1.45 p. m. Still.

Otis Street. Shaw Bros. furniture manufactory. Cause, accidental automatic alarm.

Monday, April 13, 11.05 p. m. Still.

Elm Street, Somerville, Ingalls stable. Engine Co. No. 4, rendered assistance.

Tuesday, April 14, 3 a. m. Still.

Kildare Street. Owned by James Shea as old lumber. No loss. Cause, incendiary.

Friday, April 17, 3.26 a. m. Box 59.

No. 30 Boylston Street. Owned by William Read estate. Occupied by L. L. Powers as furniture. No loss. Cause, ignition of oiled rags.

Friday, April 17, 5.56 a. m. Box 26.

Brooks Street. Owned by E. D. Brooks. Loss, trifling. Occupied by O. G. Petterson as bakery. Loss, $50. Insurance, $2,000. Cause, overheated oven.

Monday, April 20, 10. 21 p. m. Box 34.

No. 122 Hampshire Street. Owned by L. M. Hannum. Loss, trifling. Occupied by Cornelius White for storage of rags. Loss, $135. Insurance, $2,000. Cause, incendiary.

Friday, April 24, 7.40 p. m. Still.

No. 202 Elm Street, Ward 5. Owned by Ann M. Sweetser. Loss, $18. Insurance, $2,500. Occupied by D. F. Hersom as dwelling. Loss, trifling. Originated in bedroom on second floor. Cause, explosion of oil lamp.

Sunday, April 26, 5.05 p. m. Still.

Windsor Street. Cause, ignition of rubbish on dump.

Wednesday, April 29, 9.41 a. m. Box 45.

No. 157 Franklin Street. Old mattress in yard afire. Cause, children and matches.

MAY.

Friday, May 1, 7.08 a. m. Box 12.

No. 59 North Street. Owned by J. H. Jordan. No loss. Occupied by M. E. Russell as dwelling. Loss, $10. Insurance, $500. Originated in a bed in attic. Cause, unknown.

Sunday, May 3, 5.10–5.15. Box 26.

Albany Street. Owned by Allen & Endicott Building Association. Loss, $2,500. No insurance. This building was partly destroyed by fire. Feb. 11, and was being repaired. Cause, incendiary.

Monday, May 4, 9.57 p. m. Box 25.

No. 449 Main Street. Owned by Pratt heirs. Loss, $372. Insurance, $4,000. Occupied by C. B. Moller as storage of furniture. Loss, $1,400. Insurance, $1,500. Originated on third floor. Cause, unknown.

Wednesday, May 6, 10.37 a. m. Box 271.

No. 8 Harvey Street. Owned by H. G. Maclean. Loss, $260. Insurance, $2,000. Occupied by Neil Neilson as grocery. Loss, $300. Insurance, $500. Originated in the office. Cause, kerosene oil lamp taking fire.

Wednesday, May 6, 10.50 p. m. Box 134.

Hampshire Street. Cause, false alarm given by some malicious person.

Thursday, May 7, 4.30 p. m. Still.

No. 38 Brookline Street. Owned by Jessie Wilcox as unoccupied dwelling. Loss, $5. Insurance, $2,500. Originated on the roof. Cause. sparks.

Thursday, May 7, 8.45 p. m. Still.

Highland Avenue, Somerville. Engine Co. No. 4 responded to a call for assistance.

Thursday, May 7, 8.48 p. m. Box 43.

No. 25 Flagg Street. Owned by Charles Moore. Occupied by John Daley as dwelling. No loss. Cause, explosion of kerosene oil lamp.

Friday, May 8, 7.37 p. m. Box 53.

No. 27 Holyoke Street. Owned by G. E. Buckland. Loss, $239. Insurance, $4,000. Occupied by G. E. Buckland as boarding house. Loss, $85. Insurance, $500. Originated in drapery on second floor. Cause, supposed by the dropping of a lighted match.

Sunday, May 10, 6.40 p. m. Still.

No. 40 Green Street. New York Biscuit Co. bakery. Cause, accidental automatic alarm.

Monday, May 11, 5.04 p. m. Box 427.

Moore Street. Owned by J. C. Davis & Son. Loss, $10. Insurance, $1,500. Occupied by J. C. Davis & Son as stable. Loss, $15. Insurance, $3,000. Originated in a closet under stairs on first floor. Cause, spontaneous combustion.

Monday, May 11, 8.40 p. m. Box 16.

Nos. 41 to 49 Harvard Street. Occupied by Bay State Metal Works. Loss, trifling. Originated in charcoal bin on second floor. Cause, sparks.

Tuesday, May 12, 11.30–11.35–11.38–11.45 p. m. Box 134.

No. 134 to 140 Norfolk Street. Owned by Charles Place. Loss, $11,372. Insurance, $14,000. Occupied by Charles Place as paper box manufactory. Loss, $19,750. Insurance, $19,750. Cause, incendiary.

Wednesday, May 13, 12.55 a. m. Box 35.

No. 15 Worcester Street. Owned and occupied by W. W. Mercer as dwelling. Loss, $10. Insurance, $2,500. Originated on the roof. Cause, sparks from burning building.

Wednesday, May 13, 10.21 a. m. Box 10.

First Street. Owned and occupied by L. M. Ham & Co. as shed. Loss, $100. No insurance. Originated on the roof. Cause, sparks from hoisting engine.

Friday, May 15, 9.56 p. m. Box 65.

Massachusetts Avenue. Cause, false alarm given by some malicious person.

Saturday, May 16, 11.20 a. m. Box 134.

Norfolk Street. Cause, rekindling of fire in Place's box factory.

Saturday, May 16, 1.55 p. m. Still.

Ninth Street. Freight yard of Boston & Albany Railroad Co. Lumber in freight car owned by W. H. Wood & Co. Loss, trifling. Cause, incendiary.

Saturday, May 16, 9.19 p. m. Box 63.

Mason Street. Cause, false alarm given by some malicious person.

Sunday, May 17, 8.37 p. m. Box 153.

Dyke Street. Owned by City of Cambridge, Park Department. Occupied by Richardson & Bacon as storage. Loss, $2,100. Insurance, $3,300. Occupied by John Nesbitt as carpenter. Loss, $415. Insurance, $500. Originated on outside of building. Cause, incendiary.

Monday, May 18, 12.20 a. m. Box 78.

No. 6 Garden Court. Owned by Joseph Finnick. Loss, $300. Insurance, $300. Occupied by Joseph Finnick as stable. Loss, $400. Insurance, $1,700. Cause, unknown.

Monday, May 18, 11.47 a. m. Box 6.

No. 29 Main Street. Owned and occupied by Rawson & Morrison as machine shop. No loss. Cause, dropping of lighted match into oiled waste under the floor.

Monday, May 18, 7.26 p. m. Box 14.

No. 135 Thorndike Street. Occupied by A. H. Pelvin as dwelling. Loss, trifling. Cause, curtain blowing against gas jet.

Monday, May 18, 7.56 p. m. Box 54.

Cambridge Street. Cause, false alarm given by some malicious person.

Tuesday, May 19, 9.20 a. m. Still.

No. 181 Hampshire Street. Owned and occupied by George Patterson as wheelright. Loss, $5. Insurance, $1,500. Originated on the roof. Cause, sparks.

Tuesday, May 19, 9.24 a. m. Box 17.

No. 2 Hastings Street. Owned by Herman Myers. Occupied by Rose Hopkins as dwelling. Loss, trifling. Originated in a bed on second floor. Cause, unknown.

Thursday, May 21, 10.32 a. m. Box 43.

No. 131 Banks Street. Owned by Charles Moore. Occupied by Rose Rourke as dwelling. Loss, trifling. Originated in a bedroom on second floor. Cause, child and matches.

Saturday, May 23, 3.45 p. m. Box 17.

No. 249 Main Street. Owned by I. W. Gillespie. Loss, trifling. Occupied by I. W. Gillespie as carpenter. Loss, $10. Insurance, $300. Originated on outside of building. Cause, children and matches.

Saturday, May 23, 9.59 p. m. Box 168.

No. 2004 Massachusetts Avenue. Owned by A. C. Potter. Loss, $50. Insurance, $10,500. Occupied by W. F. Henderson as furniture store. Loss, $200. Insurance, $800. Originated in the cellar. Cause, unknown.

Monday, May 25, 1.30 a. m. Still.

No. 30 Gore Street. Owned and occupied by James Hagan as dwelling. Loss, trifling. Cause, ignition of soot in chimney.

Saturday, May 30, 7.30 p. m. Still.

Divinity Avenue. Owned and occupied by Harvard University as Museum. No loss. Originated on second floor. Cause, sun shining through window setting fire to a felt hat.

Saturday, May 30, 8.30 p. m. Still.

Banks Street. Cause, rubbish on dump burning.

JUNE.

Tuesday, June 2, 10.27 p. m. Box 48.

No. 117 Amory Street. Owned by Jeremiah Buckley. Loss, $300. No insurance. Occupied by Jeremiah Buckley as stable. Loss, $125. No insurance. Cause, unknown.

Wednesday, June 3, 4 a. m. Box 59.

No. 1372 Massachusetts Avenue. Owned by West End Street Railway Co. Loss, trifling. Occupied by M. R. Jones as caterer. Loss, $8. Insurance, $2,000. Originated in the floor under a cooking range on third floor. Cause, overheated.

Thursday, June 4, 12.53 p. m. Box 15.

No. 105 Fourth Street. Owned and occupied by Michael McGoun as dwelling. Loss, trifling. Originated on the roof. Cause, sparks.

Saturday, June 6, 12.38 p. m. Box 82.

No. 163 Brattle Street. Owned by C. L. Carr. Loss, $50. Insurance, $20,000. Occupied by Lucien Carr as dwelling. Loss, $135. Insurance, $6,000. Originated in bedrooms on second and third floors. Cause, incendiary.

Saturday, June 6, 1.46 p. m. Box 10.

No. 1 Thorndike Street. Owned by C. W. Munroe. Occupied by Fred Ingersoll as storage for barrels. No loss. Originated in the roof. Cause, sparks.

Tuesday, June 9, 6.16 a. m. Box 12.

No. 53 North Street. Owned by Mary Horan. Loss, $5. Insurance, $1,500. Occupied by Mary Leahy as dwelling. Originated in wood-box behind stove. Cause, unknown.

Friday, June 12, 12.50 a. m. Still.

No. 1210 Cambridge Street. Owned by J. J. Kirley. Loss, $50. Insurance, $1,500. Occupied by Mrs. J. J. McDow as dwelling. Loss, $97. Insurance, $700. Originated in a closet on third floor. Cause, rats and matches.

Monday, June 15, 5.20 a. m. Box 2.

No. 44 Bridge Street. Owned by Charles Linehan. Loss, $50. No insurance. Occupied by Henry Green as storage of lime. Loss, $500. No insurance. Cause, lime slacking.

Tuesday, June 16, 3.18 p. m. Box 68.

No. 15 Linnæan Street. Owned and occupied by N. C. Skitton as shed. Loss, $30. No insurance. Cause, child and matches.

Friday, June 19, 2.37 a. m. Box 32.

Windsor Street. Owned by Heffernan Bros. Loss, $250. Insurance, $500. Occupied by Heffernan Bros. as storage for building material. Loss, $300. Insurance, $300. Cause, supposed by spontaneous combustion.

Saturday, June 20, 4.50 p. m. Still.

Second Street. Keeler & Co. furniture manufactory. Cause, accidental automatic alarm.

Saturday, June 20, 8.30 p. m. Still.

No. 6 Clark Street. Cause, smoke mistaken for fire.

Sunday, June 21, 8.45. a. m. Still.

No. 84 Franklin Street. Cause, smoke mistaken for fire.

Wednesday, June 24, 6.53 p. m. Box 53.

No 84 Plympton Street. Owned by John Murphy as dwelling. No loss. Cause, soot in chimney afire.

Thursday, June 25, 3.55 p. m. Still.

No. 64 Boylston Street. Owned by heirs of John Lycett. Loss, trifling. Occupied by J. J. Lycett as dwelling. Loss, $25. No insurance. Originated in a bedroom. Cause, child and matches.

Friday, June 26, 7.25 a. m. Box 69.

No. 8 Dover Street. Owned by Julia Brown. Loss, $173. Insurance, $4,500. Occupied by H. S. Christopher as dwelling. Loss, $450. Insurance, $750. Originated in a closet on second floor. Cause, child and matches.

Saturday, June 27, 5.14 p. m. Still.

No. 44 Brattle Street. Cause, smoke mistaken for fire.

Monday, June 29, 5.16 p. m. Box 42.

No. 10. Somerset Street. Owned by William Moore. Loss, $100. No insurance. Occupied by Frank Audleman as stable and storage for rags. Loss, $100. No insurance. Originated in rags on second floor. Cause, supposed by spontaneous combustion.

JULY.

Wednesday, July 1, 12.42 a. m. Box 271.

Clifton Street. Owned by Annie Gustafson. Loss, $2,250. Insurance, $2,500. Unoccupied dwelling.

Owned by A. M. Richards as unoccupied dwelling. Loss, $150. Insurance, $1,500.

Owned by A. M. Richards as unoccupied dwelling. Loss, $100. Insurance, $1,500. Originated in Gustafson's building. Cause, incendiary.

Thursday, July 2, 9.59 a. m. Box 149.

Myrtle Avenue. Owned by the Chaplin Co. as shed. No loss. Originated on the roof. Cause, firecrackers.

Thursday, July 2, 8.49 p. m. Box 81.

No. 258 Mt. Auburn Street. Owned by Wight & Scorgie. No loss. The building was of no value. Cause, incendiary.

Friday, July 3, 8.44 p. m. Box 52.

No. 1045 Massachusetts Avenue. Owned by Charles Moore. Loss, $35. Insurance, $300. Occupied by Darkis Martin as variety store. Loss, $50. No insurance. Originated amongst fireworks in window. Cause, sparks from fireworks.

Saturday, July 4, 12.30 a. m. Box 29.

No. 6 Berkshire Place. Owned by J. T. Wilson as dwelling. Loss, trifling. Originated on the roof. Cause, sparks from bonfire.

Saturday, July 4, 1.31 p. m. Box 73.

No. 1 Clay Street. Owned by Catherine Connor as dwelling. Loss, trifling. Originated on the roof. Cause, firecrackers.

Saturday, July 4, 3.40 p. m. Still.

No. 465 Massachusetts Avenue. Owned by James Doherty as store and dwelling. No loss. Originated in door-sill. Cause, firecrackers.

Saturday, July 4, 7 p. m. Still.

No. 252 Hampshire Street, owned by Eugene Gormley. Loss, $25. Insurance, $2,800. Occupied by John Ponte as dwelling, Loss, $40. Insurance, $400. Originated in a bedroom on first floor. Cause, unknown.

Saturday, July 4, 7.30 p. m. Box 21.

No. 72 Waverly Street. Owned by Howe heirs as dilapidated dwelling. No loss. Cause, set afire by children.

Sunday, July 5, 1.15 a. m. Box 28.

No. 190 Broadway. Originated in old boxes and rubbish in yard. No loss. Cause, fireworks.

Sunday, July 5, 5.16 p. m. Box 41.

No. 23 Prince Street. Owned by J. A. Wade. Loss, $200. No insurance. Occupied by W. McArthur as carpenter. Loss, $100. No insurance.

Occupied by Elizabeth McArthur as storage for furniture. Loss, $500. Insurance, $600. Originated in furniture on second floor. Cause, unknown.

Wednesday, July 8, 2 a. m. Still.

No. 455 Main Street. Owned by Isaac Joseph. Loss, $170. Insurance, $2,200. Occupied by I. & J. Joseph as fruit store. Loss, $138. Insurance, $1,200. Originated in the cellar. Cause, unknown.

Sunday, July 12, 8.32 p. m. Box 59.

College Yard. Owned by Harvard College. Loss, $1,572. Insurance, $62,000. Occupied by Harvard College as chemical laboratory. Loss, $275. Insurance, $1,500. Originated in storeroom on third floor. Cause, spontaneous combustion.

Monday, July 13, 11.46 a. m. Box 42.

No. 361 Western Avenue. Owned by S. A. Dime. Occupied by T. E. Waters as dwelling. No loss. Cause, naphtha stove taking fire.

Tuesday, July 14, 11.37 p. m. Box 212.

No. 72 Main Street. Owned and occupied by Edward Kendall & Sons as boiler works. No loss. Originated in riveting tower. Cause, overheated smoke stack.

Wednesday, July 15, 3.11 a. m. Box 12.

No. 30 Gore Street. Owned by James Hagan. Loss, $685. Insurance, $990. Occupied by Inis Seaveize as dwelling. Loss, $103. Insurance, $600. Originated on second floor behind the chimney. Cause, unknown.

Friday, July 17, 7.44 a. m. Box 59.

No. 11 Palmer Street. Owned by James Bolger. Loss, $75. Insurance, $2,000. Occupied by James Bolger as horse shoeing. No loss. Insurance, $1,000. Originated in the cellar. Cause, hot iron dropping into oil.

Friday, July 17, 6.10 p. m. Box 13.

No. 87 Gore Street. Owned by Bridget Carey. Occupied by Dennis Coughlin *et als.* as stable. No loss. Originated in a stall. Cause, supposed by fire dropping from a pipe.

Saturday, July 18, 11.16 a. m. Box 7.

No. 121 Charles Street. Cause, smoke mistaken for fire.

Saturday, July 18, 9.20 p. m. Still.

No. 645 Cambridge Street. Owned by Terrance Quinn. Occupied by Bridget Downey as dwelling. No loss. Originated in attic. Cause, upsetting of lamp.

Monday, July 20, 7.08 a. m. Box 10.

Nos. 1–3 Otis Street. Owned and occupied by Irving & Casson as furniture manufacturers. Loss, trifling. Originated on fourth floor among excelsior. Cause, unknown.

Monday, July 20, 3.45 p. m. Still.

No. 5 Carlisle Street. Occupied by W. F. Wood as dwelling. No loss. Cause, gasoline stove taking fire.

Thursday, July 23, 10.43 a. m. Box 7.

Third Street. Team loaded with hemp and owned by Sewall-Day Cordage Co. Cause, supposed by sparks from a locomotive.

Thursday, July 23, 12.30 p. m. Still.

No. 369 Massachusetts Avenue. Cause, soot in chimney afire.

Saturday, July 25, 8.13 p. m. Box 2.

Bridge Street. Cause, electric car afire. Alarm needless.

Sunday, July 26, 7.45 p. m. Box 153.

No. 24 De Wolf Street. Owned and occupied by James Brennan as dwelling. Loss, trifling. Cause, lighted match in contact with a curtain.

Monday, July 27, 7.21 a. m. Box 2.

A bridge on Boston & Maine Railroad. No loss. Cause, hot coals from a locomotive.

Friday, July 31, 11.15 a. m. Box 12.

No. 165 Bridge Street. Owned by Doherty estate. Loss, trifling. Occupied by Cornelius Mahoney as carpenter. Loss, trifling. Insurance, $350. Originated on the roof. Cause, sparks.

Friday, July 31, 6.55 p. m. Still.

No. 211 Bridge Street. Owned and occupied by Wellington & Buck as coal shed. Loss, trifling. Originated on the roof. Cause, sparks.

AUGUST.

Saturday, Aug. 1, 12.06 a. m. Box 271.

No. 2371 Massachusetts Avenue. Owned by J. F. Murphy. Loss, $200. Insurance, $400. Occupied by J. F. Murphy as bowling alley. Loss, $100. Insurance, $100. Cause, unknown.

Monday, Aug. 10, 3 p. m. Still.

Second Street. Keeler & Co's. furniture factory. Cause, accidental automatic alarm.

Tuesday, Aug. 11, 8.04 a. m. Box 8.

No. 84 Thorndike Street. Occupied as dwelling. Cause, smoke mistaken for fire.

Wednesday, Aug. 12, 11.29 a. m. Box 9.

No. 6 East Street. Owned by James Hawks as dwelling. Loss, trifling. Originated on the roof. Cause, sparks from a locomotive.

Friday, Aug. 14, 10.10 a. m. Still.

No. 4 Village Street. Owned by J. P. Harris. Loss, $25. Insurance, $1,000. Occupied by J. P. Harris as dwelling. No loss. Cause, a plumber at work dropping lighted match into oakum.

Saturday, Aug. 15, 1 a. m. Box 28.

No. 45 Hampshire Street. Owned by L. D. Burr as stable. Loss, trifling. Originated on outside of building. Cause, incendiary.

Tuesday, Aug. 18, 2.47 p. m. Box 12.

No. 209 Bridge Street. Owned and occupied by W. L. Lockhart & Co. as casket manufactory. No loss. Originated among shavings in boiler-room. Cause, sparks.

Friday, Aug. 21, 12.51 a. m. Box 46.

No. 20 Hancock Street. Owned by Dennis Holleran. Loss, $80. Insurance, $2,000. Occupied by Simon Winthrop as grocer. Loss, $127. Insurance, $500. Cause, supposed by rats and matches.

Saturday, Aug. 22, 3.42 a. m. Box 92.

No. 643 Mount Auburn Street. Owned and occupied by Alexander McDonald as dwelling. No loss. Originated in oiled rags in the cellar. Cause, spontaneous combustion.

Saturday, Aug 22, 11.10 a. m. Box 162.

No. 7 Bradbury Street. Occupied by Anthony Canady as dwelling. Loss, trifling. Cause, bedclothes taking fire from a candle.

Monday, Aug. 24, 10.50 a. m. Box 135.

No. 10 Bigelow Street. Owned by T. C. Hurd. Loss, $50. Insurance, $3,000. Occupied by S. W. Allen as dwelling. Loss, trifling. Cause, top of lighted match flying into curtain.

Monday, Aug. 24, 11.27 a. m. Box 25.

No. 559 Massachusetts Avenue. Owned by Rufus Lamson estate. Loss, $35. Insurance, $18,000. Occupied by A. J. Vessay as dwelling. Originated on third floor. Cause, upsetting of a kerosene oil lamp by a child.

Tuesday, Aug. 25, 11.20 a. m. Still.

No. 1174 Cambridge Street. Occupied by H. E. Fitzpatrick & Co. as hardware store. Cause, smoke in cellar mistaken for fire.

Tuesday, Aug. 25, 1.10 p. m. Box 59.

No. 56 Brattle Street. Owned by J. H. H. McNamee. Loss, $53. Insurance, $24,000. Occupied by J. W. Ducharm as barber shop. Originated in a closet on second floor in an oily mop. Cause, spontaneous combustion.

Wednesday, Aug. 26, 1.04 p. m. Box 21.

Palermo Street. Cause, kettle of tar afire on the street.

Saturday, Aug. 29, 9.43 a. m. Box 29.

No. 15 Webster Avenue. Occupied by H. C. Cressy as dwelling. Loss, trifling. Originated on second floor in a tablecloth. Cause, child and matches.

Sunday, Aug. 30, 3.37 p. m. Box 169.

No. 40 Rindge Avenue. Owned by Isaac McLane as dwelling. Loss, trifling. Originated in a water conductor on outside of building. Cause, children and matches.

Monday, Aug. 31, 3.55 a. m. Box 26.

No. 341 Main Street. Owned by G. F. and C. E. Wentworth. Loss, $572. Insurance, $3,200. Occupied by M. H. Adams as dwelling. Loss, $40. No insurance.

No. 343. Occupied by Mendel Brauwn as shoe store. Loss, $15. Insurance, $500. Originated in a bedroom on third floor. Cause, unknown.

SEPTEMBER.

Wednesday, Sept. 2, 11.59 p. m. Box 25.

Nos. 455–457 Main Street. Owned by Isaac Joseph. Loss, $107. Insurance, $1,200. Occupied by I. & J. Joseph as fruit store. Loss, $50. Insurance, $2,200. Originated in the cellar. Cause, unknown.

Friday, Sept. 4, 8.40 p. m. Box 7.

No. 221 Third Street. Owned and occupied by John Welch as storage for rags. Loss, trifling. Cause, unknown.

Monday, Sept. 7, 7.20 p. m. Still.

No. 448 Massachusetts Avenue. Occupied by W. M. Hamilton as restaurant. No loss. Cause, netting around gas fixtures taking fire.

Friday, Sept. 11, 10.48 p. m. Box 31.

No. 17 Warren Street. Occupied by Michael Regan as dwelling. Loss, trifling. Cause, upsetting of a kerosene oil lamp.

Sunday, September 20, 11.05 a. m. Still.

No. 158 Seventh Street. Occupied as dwelling. Cause, smoke mistaken for fire.

Wednesday, Sept. 23, 3.08 p. m. Box 12.

No. 211 Bridge Street. Owned and occupied by Wellington & Buck as coal shed. Loss, trifling. Originated on roof. Cause, sparks.

Saturday, Sept. 26, 6.24 a. m. Box 29.

No. 91 Plymouth Street. Owned by N. F. Norris. Loss, $10. Insurance, $3,150. Occupied by H. G. Young as dwelling. Loss, $15. Insurance, $500. Originated in the bathroom. Cause, dropping of a lighted match amongst clothes.

Wednesday, Sept. 30, 6.55 p. m. Box 69.

No. 2 Henderson Place. Owned by E. A. Hurd. Loss, $61. Insurance, $1,500. Occupied by E. A. Hurd as dwelling. No loss. Originated in mantelpiece. Cause, overheated stove.

Wednesday, Sept. 30, 10 p. m. Still.

Pelham Street. Owned and occupied by estate of H. M. Bird as iron foundry. No loss. Originated in the roof. Cause, overheated smoke stack.

OCTOBER.

Monday, Oct. 5, 4.36 p. m. Box 59.

No. 32 Brattle Street. Owned by David Brewer. Loss, $20. Insurance, $7,500. Occupied by A. M. Davidson as hotel. Loss, $31. Insurance, $2,000. Originated in a lounge. Cause, child and matches.

Tuesday, Oct. 6, 12.51 p. m. Box 13.

No. 27½ Winter Street. Owned by John McFeeley estate. Loss, $50. Insurance, $1,200. Occupied by H. L. Graustein as dwelling. Loss, $40. Insurance, $1,000. Originated in a bureau on second floor. Cause, unknown.

Tuesday, Oct. 6, 2.40 p. m. Box 271.

No. 2394 Massachusetts Avenue. Owned by Abel Fitch. Unoccupied. No loss. Cause, supposed by children and matches.

Thursday, Oct. 8, 3.22 a. m. Box 9.

First Street. Owned and occupied by Irving & Casson as boiler-room. Loss, $125. Insurance, $2,000. Originated amongst shavings and sawdust. Cause, sparks.

Friday, Oct. 9, 5.51 p. m. Box 46.

No. 5 Centre Street. Cause, smoke mistaken for fire.

Saturday, Oct. 10, 3.47 a. m. Box 59.

No. 24 Church Street. Owned and occupied by Beta Psi Club. Cause, flame and smoke coming from top of chimney supposed to be a building afire.

Saturday, Oct. 10, 8.02 a. m. Box 13.

No. 308 Cambridge Street occupied by Charles Viona as fruit store. No loss. Cause, gasolene lamp taking fire.

Wednesday, Oct. 21, 4.19 p. m. Box 52.

No. 25 Banks Street. Owned by Mrs. Dennis Murphy. Occupied by S. E. Williams as dwelling. No loss. Cause, upsetting of a kerosene lamp.

Friday, Oct. 23, 3.15 p. m. Still.

No. 73 Boylston Street. Owned and occupied by A. S. Kennison as lunch wagon. No loss. Cause, explosion of gasoline stove.

Sunday, Oct. 25, 8.11 p. m. Box 153.

DeWolf Street. Owned by the City of Cambridge Park Department. Loss, trifling. Occupied by S. F. Rowe as coal shed. Loss, $195. Insurance, $650. Occupied by L. E. Hartsorn as storage of pungs. Loss, $800. Insurance, $800. Cause, incendiary.

Monday, Oct. 26, 2.15 p. m. Still.

No. 23 Gore Street. Owned by Thomas Leonard. Loss, $15. Insurance, $1,050. Occupied by Mrs. Thomas Sullivan as dwelling and variety store. No loss. Cause, soot in chimney taking fire.

Saturday, Oct. 31, 12.52 p. m. Box 43.

Banks Street. Cause, smoke mistaken for fire.

Saturday, Oct. 31, 2.25 p. m. Box 9.

East Street, Owned by Boston & Maine Railroad Co. as unoccupied stable. Loss, trifling. Originated on the roof. Cause, sparks from locomotive.

Saturday, Oct. 31, 5.16 p. m. Box 27.

No. 235½ Broadway. Owned by H. N. Tilton. Loss, $1,133. Insurance, $8,000. Occupied by A. J. Burns as dwelling. Loss, $450. Insurance, $500. No. 237. Occupied by A. B. Anderson as dwelling. Loss, $150. Insurance, $600. Originated in No. 235½ on second floor. Cause, upsetting of a kerosene oil lamp.

NOVEMBER.

Monday, Nov. 2, 12.54 p. m. Box 68.

No. 5 White Street Place. Owned by S. F. Woodbridge. Occupied by William Conner as dwelling. Loss, trifling. Cause, mice and matches.

Monday, Nov. 2, 3.10 p. m. Box 61.

No. 99 Mt. Auburn Street. Owned by David Brewer. Loss, $28. Insurance, $2,500. Occupied by T. H. Brewer as dwelling. Loss, $79. Insurance, $1,450. Cause, upsetting of a kerosene oil lamp.

Monday, Nov. 2, 11.40 p. m. Box 25.

Nos. 803–805 Main Street. Owned by estate of E. Davis. Loss, $150. Insurance, $2,000. Occupied by C. W. Carman as grocery. Loss, $198. Insurance, $2,000. Occupied by A. Melinsky as variety store. Loss, $200. Insurance, $800. Originated on a platform on outside of building. Cause, unknown.

Saturday, Nov. 7, 7.39–7.42–8 p. m. Box 216.

Sixth Street. Owned by D. H. Andrews. Loss, $41,584. Insurance, $40,000. Occupied by Boston Bridge Works. Loss, $93,078. Insurance, $90,000.

Sixth Street. Owned and occupied by Alden Speare as office. Loss, $150. Insurance, $1,000

Car of oats on tracks of Boston & Albany Railroad Co. Loss, $500. Insurance, $200. The fire originated in the rivet room of Boston Bridge Works. Cause, unknown.

Saturday, Nov. 7, 8.17 p. m. Box 15.

Charles and Fifth Streets. Cause, sparks from Bridge Works fire setting fire to several roofs of buildings. No loss.

Sunday, Nov. 8, 11.50 a. m. Still.

No. 1,423 Cambridge Street. Owned by D. F. McClosky as dwelling. Cause, smoke mistaken for fire.

Thursday, Nov. 19, 2.30 p. m. Box 54.

Oxford Street, Perkins Hall. Owned by Harvard College. Loss, $12. No insurance. Occupied by Max Hirsch as dormitory. Loss, $200. No insurance. Originated in a clothes-closet. Cause, ignition of a match by stepping upon it.

Friday, Nov. 20, 9.36 a. m. Box 9.

No. 6 East Street Owned and occupied by James Hawks as dwelling. Loss, trifling. Cause, sparks from a locomotive setting fire to roof.

Saturday, Nov. 21, 12.38. p. m. Box 26.

State Street. Owned and occupied by M. E. Rideout & Co. as planing mill. No loss. Cause, lamp igniting sawdust.

Saturday, Nov. 21, 9.15 p. m. Box 45.

No. 22 Hayes Court. Owned by George Rickter. Loss, trifling. Occupied by T. W. Shea as dwelling. Loss, $12. No insurance. Originated in clothes in a bedroom. Cause, unknown.

Sunday, Nov. 22, 2.58 a. m. Box 49.

No. 23 Ellsworth Avenue. Owned by William Balmer. Loss, $1,500. Insurance, $4,000. Occupied by William Balmer as dwelling. Loss, $735. Insurance, $3,000. Originated in first floor and extended to attic. Cause, overheated furnace.

Sunday, Nov. 22, 5.10 p. m. Box 162.

No. 19 Bradbury Street. Burning of an old mattress in an untenable dwelling. Cause, set afire by boys.

Monday, Nov. 23, 3 a. m. Still.

Cambridge Street. Owned by Boston & Albany Railroad Co. Occupied as gate tenders' shanty. Loss, trifling. Cause, paper around a lighted lamp taking fire.

Monday, Nov. 23, 5.37 p. m. Box 12.

No. 221 Bridge Street. Owned by L. G. Burnham & Co. Loss, $3,000. Insurance, $2,800. Occupied by L. G. Burnham & Co. as wood and coal wharf. Loss, $1,000. Insurance, $6,000. Originated in boiler-room of power house. Cause, unknown.

Monday, Nov. 23, 7.32 p. m. Box 169.

No. 41 Rindge Avenue. Owned by E. G. Dewyer. Loss, $50. Insurance, $1,500. Occupied by Michael Hickey as dwelling. Loss, $60. No insurance. Cause, explosion of a kerosene oil lamp.

Thursday, Nov. 26, 8.07 p. m. Box 10.

First Street. Owned by G. W. Peters. Loss, $1,800. Insurance, $1,800. Occupied by Parker & Page as lumber wharf. Loss, $13,000. Insurance, $39,500. Originated in a lumber shed. Cause, incendiary.

Sunday, Nov. 29, 8.55 p. m. Box 21.

No. 72 Waverly Street. Partial burning of an old dilapidated dwelling owned by Elias Howe heirs. Cause, incendiary.

Monday, Nov. 30, 10.36 p. m. Box 31.

No. 730 Cambridge Street. Owned by Bessie Sbovowsky. Loss, $186. Insurance, $4,500. Occupied by Louis Sbovowsky as furniture store. Loss, $805. Insurance, $2,000. Originated in rear of store in mattresses. Cause, unknown.

REPORT OF THE BOARD OF HEALTH.

In compliance with the public statutes creating Boards of Health and defining their duties, we have the honor to make our annual report for the year ending December 31, 1896.

We respectfully call the attention of your honorable body to the following list of complaints investigated and nuisances abated during the year: —

Full, overflowing, and offensive privy vaults	110
Open, defective, and leaky privy vaults	1
Filthy and defective privy houses	4
Offensive and defective water closets	66
Full and defective cesspools and catch basins	16
No traps to sinks	28
Leaky and defective traps	22
Defective drainage, open and broken drains	35
Filthy yards	161
Filthy stables and cow sheds	14
Manure in yards and lots	27
Wet and damp cellars	20
Stagnant water on premises	6
Dead animals on premises	9
Filthy buildings	17
Filthy cellars	31
Miscellaneous	8
Total	575
Number of inspections made	3,941
Number of subsequent inspections	4,329
Total	8,270
Number of notices issued	81
New floor to bakery	1
Ash pits cleaned and disinfected	5
Slop closets abolished	6
Offal receptacles cleaned	8

Defective plumbing in whole house remedied	2
House vacated	1
Rooms fumigated	872
Rooms washed	40
Lots of clothing, etc., disinfected	1,406
Privy vaults abolished	107

Hospital.

During the early part of the year the Board sent to the Cambridge Hospital the cases whose removal from their homes seemed most necessary for the protection of the other inmates of the dwelling.

At a meeting of the Board held July 29, it appearing that the funds available for this purpose were exhausted, it was "Voted that the following communication be sent to the Mayor, viz:

We find that the expense of conducting bacteriological examinations and of caring for the cases of infectious diseases at the Cambridge Hospital have so far this year exceeded the pro rata amount of our appropriation applicable thereto, and that in order to continue this work for the balance of the year an additional appropriation of thirteen hundred dollars ($1300) will be necessary, which amount will have to be increased should there be any material increase in the number of cases of infectious diseases requiring such isolation.

The sending of cases to the hospital seems to be the only one of our departments in which a reduction of expense can be effected, as in most of the others we are bound by contracts of employment made for the year.

The Board therefore, in order to bring its expenses within the limits of its appropriation, as it will do, finds itself unable to continue the sending to the hospital of those cases, which, for the protection of the public health, ought without any question to be sent there.

We therefore notify you that that portion of our work must be suspended for the balance of the year, leaving it to you to suggest, if you think it desirable, the making of an additional appropriation to cover this work, which is in our opinion probably the most valuable to the City of any portion of the work of this Board."

No reply to this communication was ever received.

The need of hospital accommodation for cases of infectious diseases dangerous to the public health is still as pressing as ever, and the attainment of this accommodation is apparently as remote.

Cambridge has yet to learn that money can be expended in no better way than in providing means for the isolation of cases of diseases that imperil the public health by their infectious nature.

Pending the erection of a city hospital in Cambridge, we think it desirable that your honorable body should communicate with the governing body of the Cambridge Hospital with a view to an increase of the present accommodation at the Cambridge Hospital for cases of Scarlet Fever and Diphtheria, and we urge that early action may be taken by the City, that we may not again, as we did last year, have all the existing hospital accommodations in this City occupied, and be unable to isolate or send to the hospital the additional cases which are likely to spread infection.

It is also necessary to remind you of the pressing need for a separate small-pox hospital, and impress upon you that a single case imported into this City might, and probably would, give rise to many others and entail on the City a far greater expense than would the providing of such hospital.

Disinfection.

During the year 40 rooms have been washed, 872 rooms fumigated, and 1,406 lots of clothing, bedding, etc. taken to the Swett Street plant and disinfected.

Experimental investigations which have been carried on for some time by F. C. Robinson, M. D., Professor of Chemistry at Bowdoin College, Brunswick, Me., E. A. De Schweinitz, Ph.D., M.D., Department of Agriculture, Washington, D. C., and Dr. J. J. Kinyoun, U. S. M. H. S., indicate that Formaldehyde gas is a disinfecting agent more satisfactory than any hitherto at our disposal.

Prof. Robinson says, "I selected a room containing about 3,000 cubic feet and having three large windows with very loose sash. When two liters were used, or even one and a half, complete sterilization resulted in about three and one half hours. I mean complete destruction of diphtheria and typhoid cultures. The remarkable penetration of the substance was shown by the fact that all parts of clothing; including seams, inside of pockets, etc., were sterilized in all parts of the room. Typhoid bacillus was destroyed even when buried half an inch deep in sand. But perhaps the most remarkable results were obtained from bedding. Cultures of typhoid and diphtheria were placed under the clothes, under the pillows, and even within the mattress, and found killed by two liters of alcohol in seven hours. The same result was obtained when cultures were rolled up in a mattress and the whole tied into as compact a bundle as possible."

Dr. De Schweinitz says, "The fact that this gas and its solutions are practically without injurious effect upon metal, wood and cloth, and most colors, and the minute amount necessary to secure the destruction of bacteria, makes formaldehyde practically the best gas yet known for disinfecting purposes."

We purpose to adopt this agent for disinfecting as soon as we are satisfied that the apparatus for its production has been perfected.

Bacteriology.

We have in our previous reports shown the necessity for the work of the bacteriologist not only in detecting the existence of a case of infectious disease, especially in cases of diphtheria, more promptly and with greater certainty than would otherwise be done, but also in ascertaining when first the patient ceased to be capable of communicating the disease to others.

And this portion of our work is now, we hope, established on a somewhat permanent basis.

Early in this year, Dr. George B. Henshaw was appointed Bacteriologist to this Board. By this appointment a considerable saving in money was effected, about $1500 yearly, and the transmission of results obtained from the cultures facilitated. Under the present system the cultures may be left at Dr. Henshaw's office as late as 6 P. M., and the result communicated to physicians on the following morning. The culture tubes can be obtained by physicians at the office of the Board of Health, or at Dr. Henshaw's office, No. 2 Mt. Auburn Street.

Since Dr. Henshaw's appointment in April, 1896, 551 cultures have been examined. Of this number 176 were made for diagnosis, and the remaining 375 to determine whether or not it was safe to release the person who had been ill.

Medical Inspection of Schools.

At a meeting of the Board of Health held Feb. 26, 1896 it was voted to send to the School Committee the following communication: —

"We are prepared to establish and put in operation a system of medical inspection of the children in schools as soon as we receive notification from you that the teachers in each school are prepared to receive the visits of such physicians.

The physician will address himself to the teacher in each room, will examine only such children as may be indicated to him by the teacher and each teacher should therefore be instructed by you to be prepared to indicate promptly to the physician when he calls such children as have complained of being ill, and such as may seem to the teacher to require examination."

Upon the receipt from the School Committee of a favorable reply to this communication, it was voted "That the Medical Inspector communicate on behalf of this Board to the principal of each of such schools the name of the physician appointed by this Board to inspect the scholars of such school, together with the date which he shall set for the commencement of such inspection."

The City was divided into six school districts, the number of schools in a district varying from five to seven depending on the distance to be covered by the Inspector in his daily round and upon the number of scholars in the schools visited. The following physicians were appointed Inspectors; Dr. F. F. Carr, Dr. G. A. Coburn, Dr. B. D. Davis, Dr. A. W. Dudley, Dr. W. A. Putnam, Dr. N. V. Shannon. They began their work on April 6, 1896. In May, St. Mary's Parochial School was included in the inspection and Dr. J. D. Couch was appointed Inspector.

It is desired that St. Paul's Parochial School should also be included in this arrangement, but thus far this end has not been attained.

The following instructions, a copy of which was sent to each Inspector, indicate the lines upon which the inspections are conducted: —

1st. The physician is to examine only such children as are indicated to him by the teacher as having complained, or as appearing to be suffering from disease.

2nd. The physician is to recommend to the principal to send home immediately any child whom he may suspect of having any infectious disease.

3rd. The physician must not recommend the employment of any special physician or mode of treatment for the particular case.

4th. In cases of near-sightedness or other trouble with the eyes, or deafness or other ear trouble, to which attention has been directed by the teacher, the physician is instructed to suggest that the principal recommend to the parents that the eyes or ears of the pupil be examined.

Finally, each physician is requested to call at the office of this Board, at his earliest convenience, for a conference with the Medical Inspector as to cases which are likely to arise in practice.

The diseases discovered in the schools since the inspection began and the number of cases of each disease is given below: —

Chicken-pox	20
Chorea	1
Diphtheria	7
Erysipelas	1
Measles	11
Mumps	10
Pediculosis	13
Phthisis	1
Scarlet Fever	15
Syphilis Congenital	1
Whooping Cough	21
Diseases of Ear	4
Diseases of Eye	7
Diseases of Skin	18
All other diseases	41
Total	171

We refer to our report for the year 1894 which contains a statement of the system of certification adopted by this Board, at the request of the School Committee, by which a competent physician was appointed "to examine all cases of contagious diseases in houses in which school children lived, to keep watch of the course of such cases and to forward promptly to the Secretary of the School Board notice of the time at which children who have been sick or quarantined may return to school."

In accordance with the above, the School Committee have adopted a rule to require the certificate of the Medical Inspector of this Board before re-admitting scholars to school who have had or have been exposed to an infectious disease. During the past year the two parochial and four of the private schools have, at the instance of this Board, undertaken to exclude scholars who have had or have been exposed to an infectious disease until provided with such certificate, which is now being done.

Ice.

This Board in its report for 1894, referring to the report of the Inspector of ice then before it, made the following recommendation to the City Council, viz: —

"We desire to direct your attention to the necessity of making provision this coming year for proper inspection of the sources of supply of the ice sold here for domestic use. Of the importance of such inspection there can be no question. In the absence of such inspection of the source of supply, the chemical examination of a few samples of the ice, which is all that we have at present, is of little or no value as indicating whether or not the ice is unfit for use."

Provision having been made by the City Council for such inspection during the past year, we are now for the first time in possession of information which enables us to judge of the suitability of the sources of supply from which part of the ice sold for domestic use in this City is procured.

The report of the Inspector of Ice for 1896 indicates that in several instances the danger from past or present pollution of the supply is so great as to render it necessary to prohibit the sale in this City for domestic use of ice which is derived from such impure sources.

The following are strong instances of such impure sources of supply, and in considering them it must be borne in mind that the belief that water became, by freezing, freed from any impurities which it might contain, was long ago exploded.

"*Horn Pond, Woburn, Mass.*

The northern shore of this pond is thickly settled. A small brook flows into the upper end, which brook also flows through a part of the town and receives the drainage from a number of barnyards. The danger of contamination of the water from the large population settled on the watershed is so great as to make it an unsafe one to use for an ice supply."

A considerable excess of chlorine above that which is the normal of the region indicates a past or present pollution of the water. The normal chlorine of this region is, according to the State Board of Health, 0.30 per 100,000 parts. The report of the Inspector shows that the chlorine in the water of this pond is to be 1.40 per 100,000, and his personal inspection is we think conclusive that the excess can not be attributed to a source of pollution that has ceased to exist.

"*Lake Quanapoit, Wakefield, Mass.*

The town of Wakefield borders on one end and side, a cemetery on part of the other side. The watershed of this pond supports far too large a population to make the pond a suitable one from which to cut ice for domestic use. Chlorine 1.35 per 100,000.

Normal chlorine of this region 0.38."

"*Spy Pond, Arlington, Mass.*

The northern shore is high and entirely taken up with dwelling houses. Two drains, apparently for surface water only, were seen emptying into the pond on this shore. The other banks are, with the exception of a grove on the southern shore, taken up with market gardens and with numerous houses close to the water. The danger of contamination is considerable, especially from drainage from the market gardens, on which large quantities of manure are used, much of it, I am informed, consisting of night soil. Chlorine 2.50 per 100,000."

Normal chlorine of this region 0.40.

"*Smith's or Little Pond, Belmont, Mass.*

Two brooks flow into it; one draining Spy Pond, the other draining the low land between Belmont and Arlington, which is largely given up to market gardens. The pond empties through Little River into Alewife Brook. Two colonies of *bacillus coli communis* developed during the examination of the water, which is strong evidence of sewage contamination. Chlorine 9.10 per 100,000."

Normal chlorine of this region 0.40.

"*Sandy Point, Ayer, Mass.*

There are a few houses at the lower end, and on one bank is an apparently but little used picnic ground with a privy about ten or twelve feet from the shore. Chlorine 0.40 per 100,000."

Normal chlorine of this region 0.15.

"*Waushakum Lake, South Framingham, Mass.*

There are several picnic houses around the shore, and quite a large picnic grove on one side. A small dwelling house is close to the shore near the ice houses. Chlorine 0.50 per 100,000."

Normal chlorine of this region 0.23.

The above quotations from the report of the Inspector of Ice, showing clearly as they do the pollution of many of the sources of ice supply, afford the amplest confirmation of the position taken by this Board in its recommendation above referred to, as to the necessity for making such inspection of those sources of supply, and in view of these facts, we repeat here and emphasize the recommendation already made in a communication to the City Council, dated December 23, 1896, which recommendation is as follows:

"We therefore urge the adoption of ordinances, under the powers conferred on you by Chap. 338, Acts of 1895, which shall forbid, under suitable penalties, the sale for domestic use in this City of ice which is unfit for such use," and we express the hope that such ordinances may be promptly adopted and strenuously enforced.

Bakeries.

By Chapter 418 of the Acts of 1896, certain sanitary requirements, the most important of which are given below, were made regarding bakeries in this Commonwealth, and the local Boards of Health were charged with the enforcement of the same.

1st. "All buildings occupied as biscuit, bread or cake bakeries shall be so drained and shall be provided with such a system of plumbing as shall conduce to the proper and healthful condition thereof."

2nd. "Every room used for the manufacture of flour or meal food products shall have, if deemed necessary by the authority vested with the enforcement of this act, an impermeable floor constructed of cement or of tiles laid in cement, with an additional flooring of wood properly saturated with linseed oil. The side walls and ceiling of such rooms shall be plastered or wainscoted, and, if required by said authority, shall be whitewashed at least once in three months. The furniture and utensils in such rooms shall be so arranged that the furniture and floor may at all times be kept clean and in a proper and healthful sanitary condition."

3rd. "Every such bakery shall be provided with a proper washroom and water-closet or closets, with ventilation apart from the bakeroom or rooms where the manufacturing of such food products is conducted; and no water-closet, earth-closet, privy or ash-pit shall be within or communicate directly with the bakeroom of any bakery."

4th. "The sleeping places for the persons employed in a bakery shall be separate from the room or rooms where flour or meal food products are manufactured or stored."

In accordance with the provisions of Chapter 418 of the Acts of 1896, the various bakeries in this City have been inspected, and a printed copy of the Act posted in each bakery and place in which the business mentioned in said Act is carried on. In a few small bakeries the business has been given up, and in one instance a new building is to be erected. In all the others, where necessary, such alterations have been made as were required to bring the premises into conformity with the provisions of the Act.

Ambulance.

When the Ambulance Department was abolished, the ambulance which had been used for conveying to hospital persons suffering from infectious diseases was transferred to the Board of Health.

When this ambulance was received by this Board, it was not in a fit condition for use and was lacking in many particulars now considered necessary in an ambulance to be used for the purpose for which this one was intended. The balance of the appropriation, standing to the credit of the Ambulance Department at the time of the transfer, did not accompany the ambulance.

These facts were stated at the time in a communication to your honorable body by this Board. It only remains to be said that we are still in possession of this dilapidated and antiquated structure, and without means to buy a new one, or provide properly for the use of this one, and that due provision both for the purchase of a new ambulance and for the proper running of the same are among the imperative needs for which provision must be made this coming year.

Broad Canal.

With regard to the matter of intercepting house and factory drainage into Broad Canal, the various houses and factories which could be connected with sewers have been so connected with the exception of the premises of Chas. E. Seavey and of the Cambridge Gas Light Company. The Standard Oil Company and William Campbell & Company's Boiler Works are still draining into the Canal, owing to their being no sewer with which they can be connected.

We repeat the recommendation made in our report of last year that a sewer "should be constructed as early as possible in Potter Street, and that thereafter the Canal can and should be dredged."

Swamp Lands.

We commend to your earnest attention the problem of draining the swamp lands in the vicinity of Fresh Pond. These lands constitute in their present condition a serious menace to the health of the community, and we urge upon you the necessity of appointing a special committee or commission which shall examine this question and, after conference with the representatives of Arlington and Belmont, make report thereon to the City Council.

In closing our Report we congratulate the citizens of Cambridge upon the great advances made in the last three years toward preventing the spread of infectious diseases in this City, and by reason whereof the public health is far better guarded than was previously the case.

Three years ago there was little supervision of infectious diseases. Now, the cases are visited and advice regarding isolation and the means calculated to check the extension of such diseases given.

Then, children in the incipient stages of such disease attended the public schools, scattering broadcast among their fellow pupils the infective material of disease. Now, by the daily medical inspection of our schools, diseases are recognized in their early stages and by the exclusion of the ill many are saved from infection.

Then, children who had had an infectious disease were allowed to return to the public schools on the certificate of the attending physician, which was not infrequently given before a sufficient time had elapsed since recovery and while the child who had been ill was still capable of communicating the disease. Now, the certificate of the Medical Inspector of this Board is required, who being debarred from practice has only the public welfare to consider. That this is a real advantage and is appreciated, is, we think, shown conclusively by the fact that this system of certification has been adopted by both parochial and by four private schools.

Then, those suffering from disease were rarely sent to hospital. Now, all cases of infectious diseases, so far as the pecuniary resources at our disposal will allow, are sent to hospital, where they receive care such as it is impossible for them to have at their homes, and thus dangerous foci of infection are removed from neighborhoods most likely to suffer from their continuance therein.

Then, disinfection of premises after infectious diseases was limited to fumigation. Now, in addition to fumigation, the articles that harbor longest the germs of disease and which are least affected by fumigation are removed from the premises and submitted to disinfection by steam, the most perfect method in use.

All these great advances have been rendered possible by the liberality of the City Government, and have placed Cambridge in the front rank of cities in the commonwealth which have wisely decided that their is no higher duty than that of controlling diseases which not only destroy life, but which, even when life is spared, too often leave the afflicted maimed and incapable of performing their work properly, a burden to their friends or to the city, and source of misery to themselves. And recognizing health as "above all price of wealth the Body's Jewel" we hope, by the continuance of your intelligent sympathy and liberal aid, to continue and extend the beneficent work which shows how deeply the city has at heart the protection of that portion of its inhabitants least able to protect themselves.

(Signed)

E. EDWIN SPENCER,
EDMUND M. PARKER,
CHARLES HARRIS,
Board of Health
of the
City of Cambridge.

Office of Board of Health,
City Hall, December 31, 1896.

To the Honorable the City Council: —

This Board herewith respectfully submits its annual financial statement, it being for the year ending November 30th, 1896: —

Amount appropriated for Health Department		$17,000 00
AMOUNT EXPENDED.		
Advertising	$9 90	
Anti-toxine	5 00	
Bacteriological Examinations	2064.00	
“ Laboratory	369 40	
“ Supplies	58 87	
Badge for Sanitary Inspector	75	
Burial of Animals	74 75	
“ “ Wm. Logan (Contagious Hospital Patient)	18 00	
Care of Patients at Hospital	2823 76	
Car Tickets	300 00	
Chemicals	138 00	
Carriage Hire	61 00	
Disinfecting (Paid City of Boston) . . .	202 00	
Directory	3 00	
Expressing	1 25	
Harness (repairs) Canvas Bags, etc. . . .	122 99	
Horse Board	600 00	
Horse Shoeing, etc.	51 38	
Inoculating Culture Tubes	276 00	
Indexing and Stenographic Work	373 64	
Legal Services	87 00	
Printing and Postage	152 97	
Public Urinals (care of)	802 15	
“ “ (supplies, tools)	21 49	
Services of Medical Inspector and Physician to Board	3000 00	
Amounts carried forward	11,617 30	$17,000 00

Amounts brought forward	$11,617 30	$17,000 00
Services of Clerk	1200 00 ✓	
“ “ Sanitary Inspectors	1617 50 ✓	
“ “ Van Drivers	1248 00 ✓	
Stationery	56 14 ✓	
Service of Notices	38 46 ✓	
Storage of Ambulance, etc.	2 75 ✓	
School Inspection (Services of Inspectors)	770 03 ✓	
“ “ (Supplies)	1 00 ✓	
Typewriter and repairs	73 70 ✓	
Typewriting	22 20 ✓	
Telephone	143 50 ✓	
Van Runners	100 00 ✓	
Van repairs and maintenance	108 97 ✓	
Total expenditures		16,999 55
Balance of appropriation unexpended		$ 45

By direction of the Board of Health,

JAMES B. SOPER,

Clerk.

VITAL STATISTICS.

Definitions.

"Death rate" means the proportion borne by the deaths to the population in which they occur. The term "Death Rate" is preferable to the term "Mortality," as the latter term is used to mean both the death rate and the number of deaths, and which meaning is intended can sometimes only be determined by the context, while to the term "Death Rate" no such ambiguity attaches.

"Morbidity" or "Sick Rate" means the proportion borne by the cases of illness to the population in which they occur.

"Fatality" or "Case Death Rate" means the proportion borne by the deaths from a disease to the recorded cases of that disease.

Death Rate per 1000 living from all causes.

1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.
18.96	19.64	19.17	17.05	19.24	19.44	20.89	19.56	18.40	18.73

There were reported during the year 1577 deaths, excluding the deaths of non-residents occurring in the City, and including the deaths of residents wherever they occurred, so far as these could be ascertained.

The mean annual death rate for the ten years 1887 to 1896 inclusive, was 19.10.

The death rate for 1896 was 2 per cent below this mean.

Scarlet Fever.

Cases Reported.

Ward	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1.......	3	1	1	0	0	0	0	0	2	1	7	6	21
2.......	4	2	4	1	1	3	0	0	0	4	0	5	24
3.......	2	2	2	1	1	2	0	0	1	0	0	0	11
4.......	11	6	3	0	0	3	2	3	8	5	2	7	50
5.......	4	0	2	0	4	4	0	3	3	10	37	25	92
Total	24	11	12	2	6	12	2	6	14	20	46	43	~~189~~ 198

The cases reported during the year show a decrease of 95 from those reported during the previous year.

Ward 1, a decrease of 51 cases.

Ward 2, a decrease of 42 cases.

Ward 3, a decrease of 32 cases.

Ward 4, an increase of 1 case.

Ward 5, an increase of 29 cases.

Number of Cases Reported Weekly.

Week ending	Cases.	Week ending	Cases.
January 4	6	July 4	1
" 11	8	" 11	0
" 18	6	" 18	0
" 25	0	" 25	0
February 1	5	August 1	1
" 8	1	" 8	2
" 15	4	" 15	0
" 22	4	" 22	1
" 29	2	" 29	3
March 7	4	September 5	3
" 14	3	" 12	5
" 21	2	" 19	2
" 28	1	" 26	3
April 4	2	October 3	1
" 11	1	" 10	4
" 18	1	" 17	0
" 25	0	" 24	9
May 2	0	" 31	7
" 9	2	November 7	13
" 16	2	" 14	8
" 23	1	" 21	14
" 30	1	" 28	11
June 6	0	December 5	12
" 13	7	" 12	7
" 20	2	" 19	11
" 27	3	" 26	5

Age and Sex Distribution.

Age.	Males.	Females.	Total.
Under 1 Year........	1	1	2
1– 2 Years.....	3	5	8
2– 3 "	9	9	18
3– 4 "	13	4	17
4– 5 "	12	11	23
5–10 "	52	49	101
10–15 "	7	12	19
15–20 "	3	1	4
20–30 "	1	4	5
30–40 "	1	0	1
Total.....	102	96	198

Death Rate per 1000 Living.

1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.
0.28	0.33	0.10	0.14	0.13	0.22	0.87	1.27	0.20	0.07

Morbidity per 1000 Living,

3.27	2.26	1.70	2.69	4.90	5.01	8.84	11.37	3.59	2.35

Fatality Percentage.

9.56	15.4	6.03	5.29	2.82	4.54	9.85	11.2	5.80	3.03

The mean annual death rate for the ten years 1887 to 1896 inclusive was 0.36. The death rate for 1896 was 80 per cent below this mean.

The mean annual morbidity, 1887 to 1896 inclusive was 4.59. The morbidity for 1896 was 48 per cent. below this mean.

The mean annual fatality, 1887 to 1896 inclusive, was 7. 35 per cent. The fatality for 1896 was 59 per cent. below this mean.

Diphtheria.

Cases Reported.

Ward	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1.......	2	11	1	7	8	8	5	2	4	6	8	13	75
2.......	24	9	2	1	2	9	22	7	6	1	9	6	98
3.......	17	21	20	13	13	25	9	8	2	5	8	7	148
4.......	18	9	6	4	9	7	14	3	18	1	0	2	91
5.......	6	11	0	3	2	1	4	1	7	4	2	2	43
Total	67	61	29	28	34	50	54	21	37	17	27	30	455

The cases reported during the year show a decrease of 118 from those reported during the previous year.

Ward 1, an increase of 40 cases.

Ward 2, a decrease of 179 cases.

Ward 3, an increase of 70 cases.

Ward 4, a decrease of 35 cases.

Ward 5, a decrease of 14 cases.

Number of Cases Reported Weekly.

Week ending	Cases.	Week ending	Cases.
January 4	24	July 4	16
“ 11	12	“ 11	15
“ 18	15	“ 18	8
“ 25	14	“ 25	12
February 1	13	August 1	10
“ 8	15	“ 8	7
“ 15	13	“ 15	3
“ 22	17	“ 22	5
“ 29	14	“ 29	5
March 7	8	September 5	12
“ 14	8	“ 12	10
“ 21	5	“ 19	6
“ 28	6	“ 26	9
April 4	7	October 3	2
“ 11	5	“ 10	5
“ 18	6	“ 17	0
“ 25	7	“ 24	5
May 2	6	“ 31	6
“ 9	13	November 7	3
“ 16	2	“ 14	8
“ 23	10	“ 21	8
“ 30	8	“ 28	5
June 6	11	December 5	7
“ 13	11	“ 12	8
“ 20	9	“ 19	11
“ 27	12	“ 26	8

Age and Sex Distribution.

Age.	Males.	Females.	Total.
Under 1 Year.........	0	8	8
1– 2 Years..	17	12	29
2– 3 "	20	26	46
3– 4 "	16	26	42
4– 5 "	24	21	45
5–10 "	67	84	151
10–15 "	41	34	75
15–20 "	5	9	14
20–30 "	8	18	26
30–40 "	4	8	12
40–50 "	1	1	2
50–60 "	0	1	1
Unknown	2	2	4
Total..............	205	250	455

Death Rate per 1000 Living.

1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.
0.75	1.07	1.63	0.52	0.22	0.75	0.53	0.76	1.29	0.73

Morbidity per 1000 Living.

3.16	3.36	5.16	2.24	1.59	1.74	1.33	2.24	7.27	5.40

Fatality Percentage.

19.3	26.5	29.3	20.3	13.	37.8	36.8	32.5	17.8	13.6

The mean annual death rate for the ten years 1887 to 1896 inclusive, was 0.82. The death rate for 1896 was 11 per cent. below this mean.

The mean annual morbidity, 1887 to 1896 inclusive, was 3.35. The morbidity for 1896 was 61 per cent. above this mean.

The mean annual fatality, 1887 to 1896 inclusive, was 24.7 per cent. The fatality for 1896 was 45 per cent. below this mean.

Of the reported cases 21 were of that form called Membranous Croup. Of these 21 cases, 9 died, a fatality of 43 per cent. The fatality of the remaining 434 cases, those reported as Diphtheria, was 12 per cent.

Though these statistics are lacking in many particulars necessary to the formation of an accurate judgment of the value of the special method of treatment employed, one fact stands out clearly, namely, the coincidence in point of time between the marked decrease in the fatality percentage and the introduction of antitoxine into use as a remedial and prophylactic agent. And a consideration of the reports from various hospitals where full and accurate records of the cases have been kept, including the confirmation of the diagnosis by a bacterial examination, leads to the conclusion that the coincidence of the use of antitoxine with the fall in the fatality percentage is not accidental, but is indicative of a causal relation.

It is much to be desired that the physicians of Cambridge would make more use of the facilities placed at their disposal by the Board of Health for confirming their diagnoses by the means of bacterial cultures. If this were done it might result in there being fewer cases of what may be called putative diphtheria reported, and also in there being fewer cases of true diphtheria mistaken for some other throat affection.

Typhoid Fever.

Cases Reported.

Ward	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1.......	0	1	1	0	0	1	4	11	8	5	1	2	34
2.......	2	0	0	0	1	1	6	18	23	11	4	3	69
3.......	1	0	2	0	1	0	2	3	5	6	3	2	25
4.......	0	1	0	0	0	1	4	42	17	10	8	6	89
5.......	0	1	0	0	1	1	3	10	3	11	7	1	38
Total	3	3	3	0	3	4	19	84	56	43	23	14	255

The cases reported during the year show an increase of 148 over those reported during the previous year.

Ward 1, an increase of 19 cases.
Ward 2, an increase of 31 cases.
Ward 3, an increase of 5 cases.
Ward 4, an increase of 71 cases.
Ward 5, an increase of 22 cases.

Age and Sex Distribution.

Age.	Males.	Females.	Total.
1– 2 Years.........	0	1	1
2– 3 "	0	1	1
3– 4 "	1	1	2
4– 5 "	0	2	2
5–10 "	10	11	21
10–15 "	22	14	36
15–20 "	24	17	41
20–30 "	50	37	87
30–40 "	23	21	44
40–50 "	8	4	12
50–60 "	2	1	3
Unknown	3	2	5
Total...............	143	112	255

Death Rate per 1000 Living.

1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1885.	1896.
0.31	0.41	0.36	0.24	0.22	0.20	0.20	0.29	0.14	0.35

Morbidity per 1000 Living.

1.91	2.50	2.94	1.08	0.97	1.07	1.20	1.50	1.31	3.03

Fatality Percentage.

16.3	15.7	13.5	25.	22.8	18.7	17.3	17.5	11.2	11.7

The mean annual death rate for the ten years 1887 to 1896 inclusive was 0.27. The death rate for 1896 was 30 per cent. above this mean.

The mean annual morbidity, 1887 to 1896 inclusive, was 1.75

The morbidity for 1896 was 73 per cent. above this mean.

The mean annual fatality, 1887 to 1896 inclusive, was 16.9.

The fatality for 1896 was 31 per cent. below this mean.

A large part of the unusual amount of Typhoid Fever which occurred last summer, was due to a contaminated milk supply, and will be the subject of a special report by the State Board of Health.

Below is given the mean monthly morbidity per 100,000 living for the ten years 1886 to 1895 inclusive, and the corresponding monthly figures for the year 1896. The morbidity per 100,000 is used for the purpose of avoiding fractions, and in each case the nearest whole number is taken.

Mean Monthly Morbidity per 100,000 Living, 1886-1895.

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
7	5	5	3	4	4	6	27	37	29	22	14

Monthly Morbidity per 100,000 Living, 1896.

4	4	4	0	4	5	22	99	66	51	27	17

Typhoid Fever is a specific infection of the human system caused by the action of the bacillus of Eberth. This micro-organism is contained in the excrement of persons ill of the disease, and, in the majority of cases, it is conveyed from the sick to the well by means of water or milk contaminated with fæcal discharges. It has in a few instances been introduced in other articles of food. Those having charge of the sick may also contract the disease if scrupulous personal cleanliness is not observed.

As an illustration of an "epidemic" of this disease due to a polluted water supply, the outbreak occurring in 1894 at Newport, Isle of Wight, may be cited. In an estimated population of 10,512 persons in the Borough of Newport there were 436 cases designated as enteric fever, which would give a morbidity of 41.5 per 1,000 persons living. The same morbidity in Cambridge in the year 1896 would indicate the occurrence of over thirty-five hundred cases.

Prof. Vaughan in a paper presented to the Congress of Demography held in London, England, in 1891, records 131 "epidemics" of typhoid fever, 74 of scarlet fever and 28 of diphtheria due to contaminated milk.

Dr. Kennedy, of Iowa, enumerating the conditions requiring to be considered in the effort to secure pure milk mentions, "the condition of the cattle giving the milk, whether healthy and free from any infectious disease; the feed and water given the cows; the sanitary condition of the stables; the character of the water used for washing the cans, if not for diluting the milk; the sanitary condition of the milkman's family, and whether they have any infectious disease; the habits of those handling the milk, and the methods used in milking."

In addition to the diseases mentioned above by Prof. Vaughan, there is evidence showing that tuberculosis and cholera have been transmitted by the same vehicle, namely milk.

The difficulty to be met in an endeavor to secure a supply of uncontaminated milk will be appreciated when the fact is known that the milk brought in over the railroads for consumption in this city is obtained from several hundred farms situated in the northern and eastern parts of Massachusetts and in the States of Vermont and New Hampshire. Over these dairy farms the local Board of Health of the place in which the milk is consumed has no authority. Any measures necessary to secure the milk supply from pollution will require for their satisfactory enforcement, co-operation between the dairy farmers, the middlemen and the local health boards.

The milk user can protect himself by boiling his milk before using it, or by subjecting it to the process known as Pasteurization, *i. e.*, heating the milk to a temperature of about 160° F. and keeping it at this temperature for twenty-five or thirty minutes. Either of these processes will destroy the pathogenic bacteria that may be present in the milk. Pasteurization is, however, a process requiring more attention than a large part of the community will ever give to it; and the price charged by dealers for milk prepared in this way is prohibitive of its use by the poor. But anyone can boil milk, and the following method is as good a one as there is:

Put "the milk in bottles tightly corked and boil them while immersed in water. The bottles should only be filled within about two inches from the cork, so as to allow for the expansion of the milk. After boiling, the bottles should be left in the water until it is cool, as their removal while hot will break the bottles. With this simple process there will be practically no danger from disease germs." —*Dr. Kennedy.*

Measles.

There were reported during the year 228 cases, distributed as follows:—

Ward One, 85.
Ward Two, 46.
Ward Three, 54.
Ward Four, 31.
Ward Five, 12.

The reported cases give a morbidity of 2.70 per 1000 living, and a fatality percentage of 2.2. The morbidity of Measles is quite unsatisfactory as an indication of the prevalence of the disease, owing to the fact that a large proportion of the cases are not seen by any physician and thus escape notification.

Also, some physicians have not yet learned that notification of this disease has been required since August, 1894, and that the physician neglecting to report cases of this disease is liable to the penalty prescribed by law for such neglect.

Death Rate per 1000 Living.

	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.
Cancer	0.56	0.53	0.64	0.67	0.72	0.56	0.60	0.59	0.77	0.64
Diarrhœal Diseases	2.16	2.26	1.79	1.82	1.92	2.04	1.64	2.14	1.69	2.35
Measles	0.68	0.03	0.17	0.01	0.11	0.02	0.14	0.00	0.03	0.06
Phthisis	2.64	2.50	2.63	2.49	2.73	2.69	2.76	2.08	2.22	2.30
Whooping Cough	0.06	0.36	0.19	0.18	0.16	0.14	0.20	0.43	0.13	0.21
Bronchitis	0.68	0.72	0.72	0.68	0.76	0.87	0.85	0.65	0.50	0.70
Pneumonia	1.33	1.74	1.35	1.52	1.65	1.45	2.06	1.41	1.40	1.90

The mean annual death rate for the ten years 1887 to 1896 inclusive was of cancer, 0.63; of diarrhœal diseases, 1.98; of measles, 0.12; of phthisis, 2.50; of whooping cough, 0.20; of bronchitis, 0.71; of pneumonia, 1.58.

The death rates of cancer, phthisis, whooping cough and bronchitis do not call for any comment, their variations from the mean not being indicative of any unusual influence. The death rate of diarrhœal diseases was the highest during the ten years recorded above, due undoubtedly to the great heat last summer, and to the unusually large number of deaths, twenty-three, from dysentery during the year.

If the exceptional death rate of measles in 1887 is eliminated, the death rate of 1896 is about the mean of the remaining nine years.

The death rate of pneumonia was high, being 20 per cent. above the mean, and being exceeded but once, in 1893, in the ten years recorded above.

Return of Deaths (Non-Residents Omitted).

Age and Sex Distribution.

Age.	Males.	Females.	Total.
0– 1 Year	216	187	403
1– 2 Years	55	50	105
2– 3 "	20	14	34
3– 4 "	9	10	19
4– 5 "	11	10	21
5–10 "	27	28	55
10–15 "	11	10	21
15–20 "	24	22	46
20–30 "	73	78	151
30–40 "	56	54	110
40–50 "	64	47	111
50–60 "	73	50	123
60–70 "	64	77	141
70–80 "	57	87	144
Over 80	37	56	93
Total	797	780	1577

Monthly Distribution.

January	117	July	200
February	125	August	179
March	127	September	140
April	136	October	121
May	108	November	98
June	98	December	128

Causes.	
Bronchitis	59
Pneumonia	160
Cancer	54
Cholera Infantum	91
Diarrhœa and Cholera Morbus	84
Dysentery	23
Cerebro-spinal Meningitis	4
Diphtheria and Croup	62
Erysipelas	5
Fever, Puerperal	1
" Scarlet	6
" Typhoid	30
Influenza	7
Measles	5
Phthisis	194
Whooping Cough	18
Diseases of Brain and Spinal Cord	217
" " Heart	97
" " Kidneys	56
Accident	35
Suicide	6
Unknown and ill-defined	164
All other causes	199
Total	1,577
Still Births	114

Cambridge, Mass., 1879-1896.—Death Rate per 1,000 Living at all Ages.

	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.
All Causes	17.09	17.92	20.60	18.75	19.39	18.48	20.50	17.89	18.96	19.64	19.17	17.05	19.24	19.44	20.86	19.59	18.40	18.73
Phthisis	2.86	2.84	3.18	3.20	3.30	3.12	3.03	2.88	2.64	2.50	2.63	2.49	2.73	2.69	2.76	2.08	2.22	2.30
Cancer	0.38	0.62	0.72	0.43	0.59	0.44	0.58	0.64	0.56	0.53	0.64	0.67	0.72	0.56	0.60	0.59	0.77	0.64
Diarrhœal Diseases	1.87	2.10	2.34	1.53	2.05	1.30	1.70	1.53	2.16	2.26	1.79	1.82	1.92	2.04	1.64	2.14	1.69	2.35
Measles	0.00	0.07	0.03	0.01	0.15	0.01	0.16	0.06	0.68	0.03	0.17	0.01	0.11	0.02	0.14	0.00	0.03	0.06
Whooping Cough	0.25	0.11	0.14	0.18	0.01	0.24	0.11	0.16	0.06	0.36	0.19	0.18	0.16	0.14	0.20	0.43	0.13	0.21
Bronchitis	0.59	0.45	0.51	0.39	0.68	0.65	0.80	0.55	0.68	0.72	0.72	0.68	0.76	0.87	0.85	0.65	0.50	0.70
Pneumonia	1.29	1.72	2.27	2.39	1.65	1.64	2.38	1.52	1.33	1.74	1.35	1.52	1.65	1.45	2.06	1.41	1.40	1.90
Diphtheria and Croup	1.41	0.96	1.81	1.24	1.63	0.92	1.45	1.36	0.75	1.07	1.63	0.52	0.22	0.75	0.53	0.76	1.29	0.73
Scarlet Fever	0.36	0.09	0.01	0.14	0.26	0.49	0.38	0.09	0.28	0.33	0.10	0.14	0.13	0.22	0.87	1.27	0.20	0.07
Typhoid Fever	0.13	0.15	0.40	0.30	0.28	0.41	0.20	0.34	0.31	0.41	0.36	0.24	0.22	0.20	0.20	0.29	0.14	0.35
Morbidity per 1,000 living at all ages.																		
Diphtheria	5.04	3.64	3.97	3.56	4.81	3.86	3.53	3.80	3.16	3.36	5.16	2.24	1.59	1.74	1.33	2.24	7.27	5.40
Scarlet Fever	3.22	1.78	2.16	1.28	2.93	8.51	6.65	3.70	3.27	2.26	1.70	2.69	4.90	5.01	8.84	11.37	3.59	2.35
Typhoid Fever	0.96	0.93	1.86	1.80	1.95	1.52	1.07	2.18	1.91	2.50	2.94	1.08	0.97	1.07	1.20	1.50	1.31	3.03
Fatality Percentages.																		
Diphtheria	23.7	20.3	35.8	25.2	28.8	18.2	29.8	31.9	19.3	26.5	29.3	20.3	13.0	37.8	36.8	32.5	17.8	13.6
Scarlet Fever	9.58	5.31	0.85	11.2	6.58	5.84	6.04	3.93	9.56	15.4	6.03	5.29	2.82	4.54	9.85	11.2	5.80	3.03
Typhoid Fever	12.0	18.3	18.8	17.0	14.4	25.8	20.3	14.8	16.3	15.7	13.5	25.0	22.8	18.7	17.3	17.5	11.2	11.7

The Cambridge Board of Health met and organized Feb. 5, 1878. During that year the Board was notified of a few cases of diseases dangerous to the public health, but the first complete year of notification of such diseases was 1879. Previous to 1894 notification of Membranous Croup was not required. Since then it has been, and from and including that year Membranous Croup is included under the heading "Diphtheria" in the Morbidity and Fatality statistics.

It should be borne in mind that, as all the cases of an endemic disease are never reported, the morbidity is always a little too low, and the fatality a little too high.

EDWIN FARNHAM, M.D.,

Medical Inspector.

REPORT OF THE INSPECTOR OF MILK.

CAMBRIDGE, December 1, 1896.

To His Honor the Mayor, and the City Council of the City of Cambridge: —

GENTLEMEN: — I have the honor to present the annual report of the Department for the Inspection of Milk, for the year ending November 30, 1896.

The work of this department consists in the enforcement of the laws in regard to the sale of pure milk, vinegar, and butter, and the analysis of samples of ice supplied in this city for domestic use. This work has been carried on during the last year in the manner described in previous reports, by collecting and analyzing samples of milk, vinegar and butter, by licensing all persons dealing in milk or oleomargarine, by warning or prosecuting all dealers found infringing these laws, and by collecting and analyzing samples of ice. Milk to be of good standard quality must contain not less than thirteen per cent. of milk solids, and not less than three and seven tenths per cent. of fat, except during April, May, June, July and August, when it must contain not less than twelve per cent. of milk solids and three per cent. of fat. Vinegar must have an acidity of not less than four and one half per cent. of pure acetic acid, and in the case of cider vinegar, two per cent. of cider vinegar solids; while the law in regard to oleomargarine is to prevent its sale in the place of butter, or when colored to imitate butter. This last regulation has had the effect of nearly driving oleomargarine out of the market. I believe a small amount of colored oleomargarine is used in the cheaper boarding houses, and some of the uncolored is used for cooking, but I have been unable to find any of either kind in the stores for the last two years; and while a few years ago, there were fifty to sixty licenses taken out for its sale each year, last year there was only one. Nearly the entire work of this department is devoted to securing the sale of milk of standard quality, while only a few samples of vinegar and butter are collected and analyzed. Samples are now collected every day in the week, and of the whole number, there was a smaller proportion found to be of poor standard quality than ever before; many of those put down as below the standard came, nevertheless, so close to it, and were so evidently unadulterated, that no complaint of any sort was made against the dealers from whom they were taken. The following table shows the number of licenses issued, the number of samples collected and analyzed, and the number of complaints made during the year.

Number of annual milk licenses	189
" " store milk licenses	111
" " oleomargarine licenses	1
Amount collected from sale of licences	$150 50
Total number of samples collected	2602
Number of samples of milk	2493
" of milk samples below standard	357
" of samples of vinegar	49
" of vinegar samples below standard	8
" of samples of butter	60
" found to be oleomargarine	1
" of warnings for sale of poor milk	164
" " " " " " " vinegar	3
* " " " " " " oleomargarine	1
Whole number of complaints made	9
Number of complaints for poor milk	9
" " convictions for poor milk	8
Amount of fines imposed	$375 00

An epidemic of typhoid fever has been clearly traced to the milk supply this last summer, and it is probable that a large proportion of the cases occurring every year are due to contamination of this article of food. This contamination may occur either during the manipulation of the milk by the milk man, or at the farm where it is raised; and generally occurs either from some person only slightly sick with typhoid fever handling the milk, or from

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* Found in a boarding house.

contamination of the water, used in washing the milk cans, or in some other similar manner, and I have given much thought to some effectual method of lessening this danger. It must be done either by preventing the original contamination of the milk, or by destroying its infectiousness after it is contaminated. This latter precaution can be taken by the consumer, either by boiling, or by what is known as Pasteurizing the milk, that is heating the day's supply to between 160° and 170° Fahr. for half an hour before using it. This latter method, though troublesome, is perfectly effectual, and greatly improves the keeping qualities of milk, while it does not affect its taste or digestibility as boiling does.

Pasteurizing can be done on an ordinary stove by using a double boiler and an ordinary glass thermometer with which to stir the milk and get its temperature, but done in this manner it requires continual watching. For an outlay of a few dollars any one can have made a tin oven to stand over an ordinary gas stove, or Bunsen burner if the stove is not at hand, made with shelves to accommodate the required number of milk pans, and with a thermometer let into the top, to show the temperature inside. With such an oven but little care is needed to get and keep the milk at the required temperature, especially if an old piece of woolen is wrapped around the outside of the oven to prevent radiation of heat. For an additional three dollars, a gas regulator can be procured, which will automatically regulate the heat by turning on or off the gas as required. With such an apparatus, all that is needed is to set in the pans of milk, light the gas and leave the thing to itself for about three quarters of an hour ; then take out the pans of milk, and set them into the ice chest. Such milk is perfectly safe, and will keep sweet for 24 to 48 hours longer than it otherwise would. Though Pasteurizing can be easily done, it will never be practised except by a very small number of persons, so that the real point is to prevent the original contamination of the milk. In my opinion this cannot be accomplished with any certainty. The milk supply of Cambridge comes from 600-700 farms, situated in four different States. The large proportion of this milk is brought by contractors, and by them sold to milkmen. A few milkmen buy directly from the farmers, and a still smaller number raise their own milk. In any case it is to the interest of the original producer, if a case of typhoid fever occurs in his family, to say nothing about it, for if he does he is liable to have the milk left on his hands. In any system of inspection of the milk farms which might be started this would be the same, unless some arrangement was at the time made to make good to the farmer any loss to which he might be put by giving the information. Of course inspection of the farms would show whether the sanitary arrangements were good or bad, but it would not show cases of sickness on the farms and whether proper care was taken in milking and handling the milk, and the best of sanitary arrangements are of no use unless used with care and intelligence. Moreover a system of inspection of the farms, even if it could be done in spite of the legal difficulties, and in spite of the cost, would give a feeling of security to the consumer, which would not be justified in fact. In New York a license is refused for the sale of milk unless it is raised and shipped under sanitary conditions, and the license can be revoked if these conditions are not complied with. This is a better regulation than we have, as our milk law gives the Inspector no such discretion. Copenhagen in Denmark seems to me to have this matter arranged as well as any place I have heard of. There apparently the milk business of the city is in the hands of one firm of contractors, who buy milk from the farmers, and supply it to the consumers, without the milkman, as we know him, appearing at all. This firm agrees with the farmer to take all the milk he raises, the year round at a certain price, provided it is of proper quality, is raised and shipped under sanitary conditions satisfactory to the firm, and provided the farmer will notify the firm at the earliest moment of any case of sickness among his cattle or in his family. If he does so notify, he continues to receive the contract price for his milk, but if he does not, the firm shuts off his milk as soon as the failure comes to their knowledge, and refuses to take it again. It is thus made for the interest of the farmer to notify in case of sickness, and not as with us to keep it hidden. If he does notify he can lose nothing, but if he does not he may lose the only market he has for his milk.

This arrangement seems to work nicely in Copenhagen. The farmers do notify the contractors of all sickness on the farms, and the contractors keep out such milk from the general supply. The consumer pays about five cents a quart for milk, which considering the greater value of money in Denmark, would correspond, I suppose, to from eight to ten cents a quart here. Perhaps some modification of this plan might be arranged to suit our conditions, the vital point being to make it for the pecuniary advantage of the farmers, and every one else handling the milk, to notify the proper authorities in case of sickness, and I see no way in which this can be done unless the city agrees to make good the loss, if there is any, to any one so notifying. So long as a farmer, milkman, or any one else, is going to lose money by allowing that there is sickness in his family, so long he will try to conceal it; but as soon as matters are reversed, and it is made to his advantage not to conceal it, then there is some chance of a proper notification. The cost to the city of such a plan would hardly be so great as might at first sight appear, and would probably be much less than any system of inspection of farms which might be arranged, supposing the legal difficulties of such a system to be overcome. Only cases of infectious diseases would make it necessary to shut off the milk, and in the case of a farmer raising, say twenty cans of milk a day at twenty-five cents a can, five dollars a day would cover the cost. In the case of a milkman the cost would be greater, but the cases would be less common.

The analysis of samples of the ice supplied by the different companies for domestic use was carried out in the same manner, as in former years, and in addition I made a personal examination of the sources from which this ice was obtained, taking at the same time a sample of the pond water for analysis. These sources of supply are as follows: —

1. Fresh Pond Ice Co. Cuts at Lake Muscatanapus, Brookline, N. H.

2. Independent Ice Co. Cuts at Mirror Lake, Hudson, Mass.; Lovell's Pond, Sanbornville, N. H.; Lake Winnepesaukee, Lakeport, N. H.

3. Boston Ice Co. Cuts at Horn Pond, Woburn, Mass.; Lake Quanapoit, Wakefield, Mass.; Newfield Pond, N. Chelmsford, Mass.;

Sandy Pond, Ayer, Mass.; Salmon Falls River, Milton, N. H.; Country Pond, Newton Jct., N. H.

4. Driver's Union Ice Co. Cuts at Lake Massapoag, Sharon Heights, Mass.; Waushakum Lake, S. Framingham, Mass.; Chebacco Lake, Hamilton, Mass.; Wenham Lake, N. Beverly, Mass.; Lovell's Pond, Sanbornville, N. H.; Powwow River, E. Kingston, N. H.
5. Standard Ice Co. Cuts at Wenham Lake, N. Beverly, Mass.; Smith's Pond, Wolfboro, N. H.
6. Nickerson Ice Co. Cuts at Wenham Lake, N. Beverly, Mass.; Smith's Pond, Wolfboro, N. H.
7. Cambridge Ice Co. Cuts at Spy Pond, Arlington, Mass.
8. Harvard Ice Co. Buys from Fresh Pond Ice Co.
9. Durgin Ice Co. Cuts at Smith Pond, Belmont, Mass.

I have accordingly personally visited each of these different sources of supply, examined the shores and surroundings for any sources of contamination of the water, and taken a sample of the water from the neighborhood of the ice houses for examination. These samples, and also the samples of ice previously examined, I submitted to the ordinary chemical analysis of water, and in addition made a biological examination to determine the number of bacteria, and so far as possible whether any pathogenic varieties were present. The samples differed greatly in the numbers of bacteria present, but except in one instance, they all appeared to be the ordinary water bacteria. In making this examination, three gelatine plates were prepared with a little of the water as soon as collected; the jar used to collect the sample, and everything which would in any way come in contact with the water, having been previously sterilized. As soon as the plates developed the colonies were counted and cultures made of the different varieties. These cultures were allowed to grow until their characteristics were seen, and they were then examined microscopically.

The following is a short description of the different sources of supply, and the different ponds are taken in the order given above:

Fresh Pond Ice Co.

Lake Muscatanapus, in Brookline, N. H., is a lake perhaps half the size of Fresh Pond, with high wooded shores on the north;

two small streams empty into its western end which come from the wooded hills beyond. The southern shore is grass land and the ice houses are at the eastern end of the pond near the outlet. There are no apparent sources of contamination anywhere around the pond. The ice houses and surroundings are kept in excellent order and this source of supply must be considered unexceptionable.

Independent Ice Co.

Mirror Lake in the town of Hudson is a small pond perhaps a third of a mile long by half as wide, surrounded by woods and with a house at each end. The banks are rather steep and of sand or gravel, while the water is very clear and not of the brown color so common in this part of the country. There are no sources of contamination to be seen. The two houses though rather near the shore, can hardly be considered in any way dangerous.

Lovell's Pond in Sanbornville, N. H.

is one of the best sources of supply seen. The shores are high and wooded all round the pond, which is mostly fed by springs, with only an occasional farm house back from the shores. The lake is some three miles long, and perhaps a mile across in the widest place, and with numerous wooded islands, while the water is beautifully clear and transparent. Quite a stream flows from the lake at the lower end, at which point the ice houses are situated. The men at work around the ice houses seem to use the shore of the lake as a closet, which necessarily means that this filth is washed into the lake; the same thing was seen at Lake Massapoag, a description of which comes later, and should certainly be stopped at both places.

Lake Winnepesaukee in N. H.

is some eighteen miles long of very irregular shape, and containing many wooded islands. The shores are for the most part high and wooded. There are several small towns on the lake, the largest of which is Lakeport, at the outlet where the ice is cut. While the towns certainly furnish a means of contaminating the water, the lake is so large that they have so far been without perceptible influence in this direction. The water of the lake is clear and pure, and is certainly suitable for a source of ice supply.

Boston Ice Co.

Horn Pond in the town of Woburn is perhaps half a mile long by a third of a mile in width; the northern shore is thickly settled, with high steep banks, while the southern shore, which is also rather bold, is thickly wooded: a small brook flows into the upper end, which brook also flows through part of the town, and receives the drainage from a number of barnyards. The danger of contamination of the water from the large population settled on the watershed is so great as to make it an unsafe one to use for an ice supply. The town of Woburn gets its water supply from this pond, but only after the water is filtered by means of a filter gallery connected with the pumping station.

Lake Quanapoit

in Wakefield is a lake of irregular shape, something over a mile long by half as wide. The town of Wakefield borders on one end and side, a cemetery on part of the other side; the rest of the shore is of low land, partly used for farming and partly marshy. Two small streams come into the upper end. The watershed of this lake supports far too large a population to make the pond a suitable one from which to cut ice for domestic use.

Newfield Pond in North Chelmsford

is a small pond, with low and mostly sandy shores, which are for the most part wooded. The only house on the shores is a picnic house at one end. Quite a large brook runs into this pond. It flows through meadow land and comes from a number of small ponds. There seems to be considerable vegetable matter in the water, but no source of dangerous contamination was to be seen.

Sandy Pond in the Town of Ayer

is used after filtering for a water supply. It is a small pond with for the most part low and sandy shores, but with a good deal of swampy land at one end, through which a small brook flows into the pond. There are a few houses at the lower end, rather closer to the pond than desirable, and on one bank is an apparently but little used picnic ground, with a privy about ten or twelve feet from the shore. This privy should be moved further back into the woods. Except this there was no apparent source of contamination, except from decaying vegetable matter in the swampy land.

At Salmon's Falls River, Milton, N. H.,

ice is cut from a pond through which the river flows. This pond is practically river water. There are several small towns on the river above this point where the stream is used for mill purposes. While nothing objectionable was seen around the pond itself, the fact that it is practically part of a small stream on which lie towns and mills, and so is liable to pollution at any time, is certainly an objection to its use as a source for ice.

Country Pond in East Kingston, N. H.

is a large lake some four or five miles long of very irregular shape, and with many islands. The shores are mostly high and wooded, with a collection of summer cottages at the upper end, and an occasional farm house some distance back from the lake. I should think it an excellent source of supply, and saw no evidence of contamination of the water.

Driver's Union Ice Co.

Lake Massapoag in Sharon Heights, Massachusetts, is a large body of water, perhaps two miles long by half as wide, of a rather oval shape, and with the shores fairly high and gravelly. A road runs along the southern and eastern shores, on which are quite a number of houses, many of them apparently for summer use only; the western shore consists largely of pasture land, with woods and a picnic ground towards the northern end. There were no sources of contamination seen except on the shore by the ice houses as mentioned in connection with Lovell's Pond, and at the present time the lake seems to be a fair source of supply for ice.

Waushakum Lake

is a medium sized pond of very irregular outline, a short distance from the town of South Framingham. There are several picnic houses around the shore, and quite a large picnic grove on one side. A small dwelling house is also close to the shore near the ice houses. For the most part the shores are wooded and the soil sandy. No source of impurity was found.

Chebacco Lake in Hamilton

is a large sheet of water of very irregular outline, with the shores for the most part heavily wooded and fairly high. There are a couple of hotels and a few summer cottages close to the lake. Also a picnic ground at one end and a few small farm houses. The lake receives the overflow from two or three smaller lakes, the shores of which are mostly uninhabited and seems to be quite suitable for cutting ice. The water is fairly deep and no source of contamination was seen.

Wenham Lake

is in North Beverly. It is a large lake, for the most part with high wooded shores and a sandy or gravelly soil. A few farm houses are at the northern shore where the land is rather lower and covered with grass. Both Beverly and Salem use this lake for a water supply. No source of contamination was seen.

Powwow River

forms the outlet of Country Pond, previously described. It flows through meadow land and about three miles below the pond is a dam, so as to overflow the meadows at will. The ice is cut from the overflowed meadows. There seems to be no chance for any pollution of the water between Country Pond and the dam, as the meadows are uninhabited, and they would seem to afford a fair source of ice supply, though owing to the danger of vegetable impurities not so good as Country Pond.

Standard Ice Co.

Smith's Pond, Wolfboro, N. H., is several miles in length, the shores are high, wooded, and uninhabited, while the water is beautifully clear. It is an extremely good source of supply.

Cambridge Ice Co.

Spy Pond in the town of Arlington is an irregular shaped pond of perhaps three quarters of a mile in length. The northern shore is high and entirely taken up with dwelling houses, for the most part with gardens, running down to the shore. Two drains, apparently for surface water only, were seen emptying into the pond on this shore. The other banks are with the exception of a grove on the southern shore, taken up with market gardens, and with numerous houses close to the water. The danger of contamination of the water in this pond is considerable, especially from drainage from the market gardens, on which large quantities of manure is used, much of it I am informed consisting of night soil. At the time of my visit the water showed signs of contamination, as will be seen by the analysis. This pond has several times been considered as a water supply, and has always been condemned as unfit for this purpose. It cannot therefore be considered as a desirable source of supply for ice, but as one liable at any time to dangerous contamination.

Durgin Ice Co.

Smith or Little Pond in the town of Belmont is close to the western end of Spy Pond which empties into it. It is roughly triangular in shape, perhaps a quarter of a mile across in the longest direction. Two brooks flow into it, one draining Spy Pond, comes in at the northeastern corner, the other empties in at the western end, draining the low land between Belmont and Arlington, which is largely given up to market gardens. The shores of this pond are mostly low and swampy. The southern shore especially is low with much dirty, stagnant water, and through this low land the pond empties at its southeastern corner, through Little river into Alewife Brook. The same objections which apply to Spy Pond apply with even more force to this one, and for a full consideration of the matter, I would refer to the report of the Special Committee on the Water Supply of the City made in 1879, when this pond was most fully considered as a source of water supply for the City. At the time I saw this pond, the water was very turbid and the analysis showed plain evidence of contamination. Two colonies of the Bacillus Coli Communis developed during the bacteriological examination of this water, which in itself is strong evidence of sewage contamination.

WATER ANALYSIS.

	PARTS PER 100,000.							
	Total Solids.	Mineral Matter..	Volatile and Organic Matter.	Sediment.	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Bacteria per c. c.
Lake Muscatanapus.. Brookline, N. H....... Collected July 9th.....	2.50	0.50	2.00	Very slight.	0.25	0.001	0.011	450
Mirror Lake.......... Hudson, Mass........ Collected June 6th....	3.50	3.00	0.50	Very slight.	0.60	0.0005	0.008	1245
Lovell's Pond..... ... Sanbornville, N. H.... Collected Sept. 29th...	7.00	5.00	2.00	Very slight.	0.30	0.001	0.010	120
Lake Winnepesaukee Lakeport, N. H........ Collected Oct. 14th....	4.00	3.00	1.00	Very slight.	0.40	0.001	0.006	255
Horn Pond............ Woburn, Mass........ Collected June 17th...	10.00	4.00	6.00	Moderate amount.	1.40	0.002	0.018	1620
Lake Quanapoit....... Wakefield, Mass...... Collected July 5th....	9.00	6.50	2.50	Moderate amount.	1.35	0.001	0.014	†
Newfield Pond........ N. Chelmsford Mass.. Collected July 18th....	3.75	2.25	1.50	Moderate amount.	0.50	0.001	0.015	525
Sandy Pond........... Ayer. Mass............ Collected June 24th...	5.00	1.00	4.00	Small amount.	0.40	0.001	0.015	480
Salmon Falls River... Milton, N. H.......... Collected Sept. 29th...	7.50	6.00	1.50	Small amount.	0.35	0.001	0.009	535
Country Pond......... East Kingston, N. H.. Collected Aug. 20th.....	8.00	4.00	2.00	Small amount.	0.50	0.00075	0.008	450
Lake Massapoag...... Sharon Heights, Mass Collected Aug. 13th...	4.00	0.75	3.25	Moderate amount.	0.50	0.001	0.012	615
Waushakum Lake.... S. Framingham, Mass Collected Aug. 6th....	4.00	2.00	2.00	Slight.	0.50	0.001	0.013	‡
Chebacco Lake....... Hamilton, Mass....... Collected Aug. 11th...	4.00	2.75	1.25	Moderate amount.	0.80	0.001	0.012	§
Wenham Lake*....... Beverly, Mass.... .... Collected July 2nd....	9.00	7.00	2.00	Moderate amount.	1.00	0.0025	0.020	§
Powwow River........ East Kingston, N. H.. Collected Aug. 20th...	8.00	3.00	5.00	Small amount.	0.45	0.001	0.011	465
Smith's Pond..... ... Wolfboro, N. H....... Collected Oct. 14th....	9.00	6.50	2.50	Very slight.	0.40	0.00075	0.006	120
Spy Pond............. Arlington, Mass...... Collected Nov. 14th...	21.00	16.00	5.00	Considerable	2.50	0.021	0.022	680
Smith Pond............ Belmont, Mass........ Collected Nov. 14th...	28.00	20.00	8.00	Much.	9.10	0.015	0.021	800

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*There was a very high wind at the time this sample was taken.

† Innumerable. ‡ Very few, mostly moulds. § Very numerous.

The following table shows the amount of the appropriation for this Department, and the manner in which it has been expended:

Appropriation		$1,600 00
Salaries	$ 1215 00	
Inspection of sources of ice supply	115 26	
General expenses	255 98	
		$1586 24
Balance unexpended		$ 13 76

Respectfully submitted,

(signed) FRANK A. DUNBAR,
Inspector of Milk.

REPORT OF THE OVERSEERS OF THE POOR.

CENTRAL SQUARE BUILDING,
CAMBRIDGEPORT, December 28, 1896.

To the Honorable the City Council of the City of Cambridge:—

GENTLEMEN:—In compliance with the provisions of the new City Charter, the Overseers of the Poor herewith present their annual report for the year ending November 30, 1896.

In March last Mr. Charles Walker, who has served continuously as a member of the Board since 1886, was re-elected by the City Council for a term of five years.

The past year has been marked by an unusual prevalence of cases of contagious diseases, a large portion of the expense of care and support of such city poor having been provided for from the appropriation of the Overseers of the Poor.

The depression of business has also since been felt by this department which has been called to relieve the wants of many of our poor who have been unable to procure work during the year. It may be said, however, that there is a natural increase in the cost of supporting the poor in the same ratio as our general population becomes greater in number.

The Overseers have again been required by the City Council to bear the expense of $332.64 for taxation upon the Almshouse property by the City of Somerville. For a period of nearly twenty years this tax has been paid from the appropriation for Incidentals, and the Overseers feel that this practice should have been continued.

In the month of March the City Council made the usual appropriation for the year, and the following appropriations were made for the different branches of this department, as follows:—

Outside Aid	$45,000 00
Almshouse	20,000 00

Farm and Ledge	10,000 00
House Offal	$25,000 00
Additional appropriation and transfer to Outside Aid	2,031 69
Additional appropriation and transfer to Farm and Ledge	1,848 12
Assistant City Physician's salary	1,500 00

The following were the actual expenditures and receipts for the year :—

OUTSIDE AID.

Expenditures	$47,031 69
Receipts	5,757 62
Net cost	$41,274 07

ALMSHOUSE.

Expenditures	$20,169 28
Receipts	1,042 79
Net cost	$19,126 49

FARM AND LEDGE.

Expenditures	$10,394 33
Receipts	13,263 10
Net gain	$2,868 77

ASSISTANT CITY PHYSICIAN.

Expenditures	$1,500 00

HOUSE OFFAL.

Expenditures	$26,284 51
Receipts	9,155 35
Net cost	$17,129 16

The number of persons at institutions for whose support the City is liable has been as follows :—

City Almshouse	261
State Lunatic hospitals	180
State Almshouse	6
Baldwinville Hospital Cottages	1
Massachusetts School for Feeble Minded	11
Number of insane in families	5
	464

The insane hospital cases include 10 at the Danvers Lunatic Hospital, 71 at the Worcester Lunatic Hospital, 16 at the Worcester Insane Asylum, 4 at the Taunton Lunatic Hospital, 21 at the Westboro Insane Hospital, 11 at the Foxboro Dipsomaniac Hospital, 27 at the Medfield Insane Asylum, 13 in the insane ward at the State Almshouse at Tewksbury, 6 in the insane ward at the State Farm at Bridgewater. One insane man and six insane women have been boarded out in families, all under the supervision of the State Board of Lunacy and Charity. There have been 24 mildly insane cases at the Almshouse, in addition to the number at the lunatic hospitals supported by the city.

The amount paid to the State Lunatic Hospitals and private families for the insane has been $23,417.49, which is $1,535.82 more than the previous year. The relations of the insane and other persons supported by the city have paid $2,162.91 into the city treasury. Other cities and towns have reimbursed the city to the amount of $2,276.52 for aid rendered their poor living in Cambridge. The State Treasurer has paid $2,152.71 for the support of cases having no settlement which were aided from the office of the Board.

There have been 542 histories taken of new applicants for relief, and 51 histories have been revised, as appears from the report of the Visitor.

The Assistant City Physician has made 1094 upon 114 patients at the Almshouse, and he has also made 2057 visits upon 682 patients outside of the institution, as seen by his report.

There have been 261 inmates in the Almshouse during the year, and there remained 127 persons on November 30, as appears in the report of the Superintendent. Many interesting facts relating to the house, farm, ledge and offal departments will also be found in his report.

Four hundred and seventy-seven families, embracing 1,431 persons, have been aided from the office of the Board during the past year. Seventy-eight of these families lived in Wards 1 and 5, 271 of them resided in Wards 2 and 4, and 128 of them lived in Ward 3.

RECAPITULATION.

Total expenditures for Outside Aid, Almshouse, Farm and Ledge	$77,595 30
Receipts for the same	20,063 51
Net cost of care of the Poor	$57,531 79

ADDITIONAL RECAPITULATION.

Net cost of Poor to the city	$57,531 79
Add profit from Farm and Ledge	2,868 77
Net cost of Poor without gain from Farm and Ledge	$60,400 56
Net expense of Almshouse for the year	19,126 49
Net expense of Insane outside of Almshouse, as estimated	21,254 58
Net expense of aid to families outside of Almshouse, as estimated	20,019 49
Total net cost of Poor without gain from Farm and Ledge	$60,400 56
Deduct gain from Farm and Ledge	2,868 77
Net cost of Poor to the city	$57,531 79

Respectfully submitted,

WM. W. BURRAGE,
ALEX. MILLAN,
CHARLES WALKER,
STEPHEN ANDERSON,
CHARLES BULLOCK,
Overseers of the Poor.

REPORT OF THE SUPERINTENDENT OF THE ALMSHOUSE.

CAMBRIDGE, December 1, 1896.

To the Overseers of the Poor:—

GENTLEMEN:—The annual report of the Almshouse for the year ending November 30, 1896, is herewith respectfully submitted.

The whole number in the Almshouse during the year has been as follows:—

Males	146
Females	115
Total	261
Adults	223
Minors	38
Whole number in the Almshouse Nov. 30, 1896	127
Average number during the year	112

Included in the whole number in the Almshouse Nov. 30, 1896, there are:—

INSANE OR DEMENTED.

Males	5
Females	19
Total	24

IDIOTIC OR IMBECILE.

Males	1
Females	2
Total	3

BLIND.

Males	3
Females	1
Total	4

Included in the whole number discharged during the year are twenty-three persons who have been sent to other institutions, as follows :—

To Cambridge Hospital	2
Carney Hospital	2
Home for Consumptives, Dorchester	1
Massachusetts State Home, Roxbury	3
Middlesex House of Correction	1
Soldiers' Home, Chelsea	1
State Almshouse, Tewksbury	4
Womens' Prison, Sherborn	1
Worcester Lunatic Hospital	8

Remaining in the Almshouse Nov. 30, 1896 : —

Males	72
Females	55
Adults	117
Minors — Boys, 6 ; Girls, 4	10

Of the boys remaining Nov. 30, 1896, there are : —

Neglected children	3
Dependent children	3
Total	6

Of the girls remaining Nov. 30, 1896, there are : —

Neglected children	2
Dependent children	2
Total	4

The following tables will show all the statistics considered of general interest.

Table I.

Showing the number and sex of adult persons and minors of all classes received into the Almshouse in each month of the year ending Nov. 30, 1896.

Months.	Adults.		Minors.		Total.	Dependent Children.		Neglected Children.	
	M.	F.	M.	F.		M.	F.	M.	F.
December, 1895......	4	3	0	0	7	0	0	0	0
January, 1896	4	4	1	2	11	1	2	0	0
February, "	3	1	0	1	5	0	1	0	0
March, "	7	2	0	1	10	0	1	0	0
April, "	4	2	0	0	6	0	0	0	0
May, "	8	7	4	4	23	4	4	0	0
June, "	7	7	4	1	19	4	1	0	0
July, "	4	8	0	0	12	0	0	0	0
August, "	6	3	1	0	10	1	0	0	0
September, "	6	3	2	0	11	2	0	0	0
October, "	5	9	2	1	17	2	1	0	0
November, "	9	6	2	1	18	2	1	0	0
Totals...........	67	55	16	11	149	16	11	0	0

Table II.

Showing the number and sex of adult persons and minors of all classes discharged from the Almshouse in each month of the year ending Nov. 30, 1896.

Months.	Adults.		Minors.		Total.	Dependent Children.		Neglected Children.	
	M.	F.	M.	F.		M.	F.	M.	F.
December, 1895......	2	1	0	0	3	0	0	0	0
January, 1896.. ...	1	6	1	2	10	1	2	0	0
February, “	8	1	0	2	11	0	2	0	0
March, “	8	1	0	1	10	0	1	0	0
April, “	5	2	0	1	8	0	1	0	0
May, “	7	6	2	3	18	2	3	0	0
June, “	8	7	2	2	19	2	2	0	0
July, “	4	8	3	2	17	3	2	0	0
August, “	3	2	0	0	5	0	0	0	0
September, “	5	5	1	1	12	1	1	0	0
October, “	6	3	0	0	9	0	0	0	0
November, “	3	4	4	1	12	4	1	0	0
Totals..........	60	46	13	15	134	13	15	0	0

Table III.

Showing the name, age, time of admission, date and cause of death of each person who has died in the Almshouse during the year ending November 30, 1896.

Names.	Age.	Date of Admission.	Date of Death.	Cause of Death.
Still-born male, Dunn...	—	Jan. 9, 1896.	Jan. 9, 1896.	
Theresa McClennahan..	57	Dec. 28, 1895.	Jan. 18, 1896.	Cerebral Softening following Apoplexy.
Lydia Wood............	73	Jan. 13, 1896.	Jan. 27, 1896.	Cerebral Softening following Apoplexy.
Mildred Reed..........	18	March 28, 1895.	Feb. 5, 1896.	Consumption.
Timothy Bresnahan....	71	Jan. 8, 1896.	Feb. 6, 1896.	Chronic Bronchitis.
Michael Flaherty.......	64	Sept. 10, 1895.	Feb. 28, 1896.	Consumption.
Abigail Sullivan........	98	Jan. 4, 1889.	March 10, 1896.	Gangrene of Leg.
Thomas Mangan........	49	March 28, 1896.	March 28, 1896.	Pneumonia.
Electrius Oaks..........	62	April 11, 1896.	April 12, 1896.	Pneumonia.
Lorenzo Orr............	78	June 19, 1896.	June 29, 1896.	Natural Causes.
Edward Carroll.........	67	May 29, 1882.	July 4, 1896.	Chronic Myelitis.
William Dacey	65	Sept. 9, 1896.	Oct. 24, 1896.	Apoplexy.
Patrick Cunningham....	71	Sept. 30, 1891.	Nov. 3, 1896.	Senile Dementia.
Thomas McKeown......	54	Nov. 12, 1896.	Nov. 27, 1896.	Consumption.

Products of the Farm.

320 bushels beans	$225 00
175 bushels beets	67 00
780 dozens bunches beets	215 00
60 bushels beet greens	25 00
7000 cabbages	400 00
160 bushels carrots	80 00
480 dozens bunches carrots	160 00
600 boxes celery	1,800 00
10,500 cucumbers	185 00
325 bushels dandelion greens	310 00
250 dozens eggs	37 50
500 dozens green corn	50 00
1800 dozens lettuce	750 00
358 dozens bunches onions	66 50
470 bushels onions	295 00
13 bushels parsley	16 00
225 bushels parsnips	200 00
28 bushels peas	35 00
5754 pounds pork	230 16
20 bushels potatoes	20 00
1450 dozens radishes	425 00
4500 pounds pie plant	45 00
340 bushels spinach	75 00
4 tons squash	80 00
660 bushels tomatoes	350 00
	$6142 16

Comparative Table of Almshouse, Farm, Ledge, and House Offal Receipts for Sixteen Years ending November 30, 1896.

Years.	Board.	Chair Shop.	Farm.	General Sales.	Stone.	House Offal.	Totals.
1881....	$322 56		$378 50		$2.529 01	$5,536 88	$8,766 95
1882....	705 34		436 54		2,626 17	5,705 22	9,473 27
1883....	1,174 96		476 22	$14 19	2,622 00	5,819 55	10,106 92
1884....	1,480 93		316 76		4,238 77	6,449 96	12,486 42
1885....	2,035 58		335 32	149 85	4,509 84	7,354 26	14,384 95
1886....	613 93	$37 50	772 14	319 75	5,611 38	6,926 23	14,280 93
1887....	514 64	634 19	1,595 10	241 37	4.684 14	6,856 59	14,526 03
1888....	557 28	614 94	2,846 52	213 62	6,662 26	6,721 50	17,617 86
1889....	274 84	479 28	3,684 59	144 36	5,564 18	7,324 61	17,471 06
1890....	302 49	794 36	4,364 03	150 89	5,651 38	7,386 33	18.649 48
1891....	1,201 33	844 62	5,213 68	161 71	6.107 86	7,716 77	21,245 97
1892....	1,253 06	899 81	5,371 60	166 45	5,220 50	7.535 57	20.447 55
1893....	703 70	325 86	6,400 64	210 09	5,826 74	7,033 52	20,500 05
1894....	1,094 89	220 07	6,504 66	615 69	7.955 42	8,218 96	24,609 69
1895....	622 77	77 00	6,512 63	160 19	8,265 14	9,045 55	24.682 78
1896....	834 52	61 25	5,623 67	147 02	7,639 48	9,155 35	23,461 24
Totals	$13.692.32	$4,988 88	$50,832 55	$2,695 18	$85,714 27	$114,786 95	$272,710 15

The health of the people in the Almshouse has been good during the entire year.

Of the fourteen who have died, nine were persons whose average period of residence at the Almshouse did not exceed fourteen days.

The profits from market gardening have been small this year in consequence of long continued drought in the early summer.

The quarrying of stone has been successfully managed, and our books show a gratifying balance on the credit side.

The officers and employees of the institution have given faithful and intelligent service, and the harmonious relations of the different departments have been a pleasant and helpful feature of our work.

Almshouse Population.

It is now a little less than eighty years since the town of Cambridge instructed its Overseers of the Poor to build a new building for the proper housing of its poor, and the care and control of its disorderly and vicious population. The town appears to have been in doubt as to just what sort of an institution was desirable, or under what name it would do its best work.

So the Overseers were instructed to build an almshouse, work-house or house of correction.

Cambridge followed the fashion of all the larger communities in the State at that period, and collected together in a single edifice the deserving poor, a very small class, and also a much larger class of vicious and criminal persons for restraint and punishment. This practice gave the Almshouse an unenviable reputation. What should have been a quiet retreat and a peaceful home in which self-respect could be preserved, was, in reality, a turbulent prison, the dread of the destitute, the last resort from suffering and want.

This union of charitable and penal institutions was only justifiable upon the grounds of enforced economy. In most of the communities of the State the work-house feature has been eliminated, and the Almshouses have been relieved, to a considerable extent, of a most undesirable population. Nevertheless the degraded and vicious still find admission to most of the larger Almshouses of the State. The traditions of the past still influence the present.

It is my desire in this report to emphasize the importance of making the Almshouse more a home for the deserving poor by the exclusion, as far as possible, of such as are brought to destitution by their own voluntary vicious conduct and intemperate habits.

Our pity for the unfortunate exhibits one of the best traits of human nature, for "misfortunes are of no particular tribe or nation, but belong to us all, and have a general claim upon us without distinction of climate, country or religion."

As among all the vicissitudes of life the most melancholy event is the destruction of a home, so the noblest office of civic power is to assuage the pangs of poverty and to lift from heavy-laden hearts the burdens of misfortune which no act of theirs has invited, and which no human foresight could have averted.

But the case of him who solicits destitution, by persisting in intemperate habits, is entirely different and presents a much feebler claim upon our sympathy. He is the artificer of his own misfortunes. He adds nothing to the wealth of society, but constantly increases its burdens by his demand for shelter, food, clothing and medical treatment at the expense of the public treasury.

The Overseers of the Poor must act under the statute which says: "Every city and town shall relieve and support all poor and indigent persons settled therein whenever they shall stand in need thereof."

Absolute want must be met by a supply of physical necessities. But when the houseless has been sheltered, the hungry fed, the naked clothed, when vigorous health has been restored, and the dependent has become equal to the labor required for self-support, society has discharged the full measure of its duty and is under no obligation to still care for him who is able to care for himself. He now obtains employment and spends his wages in drink; the clothing furnished at the public charge is placed in pawn, or sold for a pittance to procure the means of intoxication; he loses his employment and begs and starves till his health gives way, and he renews his demand for relief.

When this course is repeated again and again, has he still an equitable claim to be supported in an Almshouse? Is he not fully described in the criminal laws of the state, and has he not earned his admission to a different institution?

The state throws around the fund of military aid intended for the relief of men who faced the perils of war, the safeguards of legislation, declaring that the soldier is barred from such relief when his necessities arise from a continuance in vicious or intemperate habits, or voluntary idleness, or when he has been convicted of a criminal offence.

If the state can so discriminate against brave men who have rendered such honorable service, what ought to be its attitude towards those who rob industry of its reward and lay a burdensome tax on thrift that they may live in idleness or criminal self-indulgence.

In the system upon which the German Almshouses are conducted a person cannot be admitted into an almshouse after having been sentenced to a prison for a criminal offence. Perhaps this system could hardly be adopted in this country.

But there should certainly be some way by which the intemperate, profane, boisterous and quarrelsome should be permanently separated from the quiet, orderly and grateful people for whom, in theory at least, the Almshouse was established.

To oblige such to mingle in unavoidable companionship with the degraded victims of appetite, subjects them to a degree of humiliation and suffering not contemplated in the provision made for the relief of honest poverty.

Possibly the forthcoming report of the State commission appointed to investigate the whole subject of charitable and reformatory institutions in the Commonwealth may contain valuable suggestions upon this matter.

The thoughtful and humane interest manifest by your board in the unfortunate wards of the city, and the wise changes you have already made to ensure their safety, convenience and comfort, give ample assurance of your best efforts to place our Almshouse within the ranks of those "charities that soothe and heal and bless."

Respectfully submitted,

MARTIN L. ELDRIDGE,
Superintendent.

REPORT OF THE CITY PHYSICIAN.

CAMBRIDGEPORT, December 1, 1896.

To the Honorable the City Council of the City of Cambridge:—

GENTLEMEN: According to the requirements of Chapter 45 of the revised ordinances of 1892, a report of the doings of this office for the year ending November 30, 1896, is hereby rendered:—

ALMSHOUSE.

Number of visits to the Almshouse	143
Number of persons treated therein	114
Number of professional visits to the same	1,094
Number of births at the Almshouse	2
Number of deaths at the Almshouse	14
Cost of medicines and surgical appliances furnished	$309 86

OUTSIDE AID.

Number of persons attended by direction of the overseers of the Poor	682
Number of professional visits to the same	2,057
Number of examinations as to sanity	83
Number of certificates of insanity issued	57
Number of births	19
Number sent to hospitals for treatment	32
Number vaccinated	16
Number of deaths	23
Cost of medicines and surgical appliances furnished	$638 45

DEPARTMENTAL SERVICE AND TOTALS.

Number of persons visited at police stations	22
Number of visits to same	25
Number visited at request of the soldiers' aid committee	2
Number of visits to the same	2
Number of civil service examinations for the police department	40

Number of civil service examinations for the fire department	21
Total number of civil service examinations	61
Number of vaccinations for the school committee	283
Number of persons examined where suit was threatened	10
Number of employees examined for injuries received	10
Total number of persons receiving professional attention	1,184
Total number of visits to the same	3,539
Total number of deaths	37
Total number of certificates of death issued	59
Total amount expended for medicines and surgical appliances	$948 31

Respectfully,

LEWIS L. BRYANT,
City Physician.

REPORT OF CITY TREASURER'S FEES.

OFFICE OF CITY TREASURER, December 2, 1896.

To the Honorable the City Council : —

In compliance with the Ordinance, I herewith give a detailed report of fees received by me as City Treasurer and Collector of Taxes in the year ending November 30, 1896, all of said fees having been paid into the City Treasury : —

From summonses for taxes	$970 96
" Writing descriptions of estates to be sold	306 30
" Advertising estates to be sold	260 30
" Posting on estates to be sold	203 45
" Writing Collector's deeds	103 00
" Making affidavits of demand and sale	103 00
	$1,947 01

Respectfully submitted,

WM. W. DALLINGER,

City Treasurer.

REPORT OF THE CAMBRIDGE WATER BOARD.

Cambridge, December 15, 1896.

To the Honorable, The City Council of the City of Cambridge:

Gentlemen:—The Cambridge Water Board herewith submit their thirty-second annual report, for the year ending November 30th, 1896.

The past year has been one of unusual activity in all departments of the water works of our city, as the unusually large expenditures indicate, and gratifying results are apparent as the year closes.

The following taken from our financial statement will serve to indicate the magnitude of the work for 1896.

Financial Condition.

TOTAL COST OF THE WATER WORKS.

Cost of the works to Nov. 30, 1895, as per report of last year,	$4,022,681.92
Expended during the past year,	766,039.32
Making the total cost to Nov. 30, 1896,	$4,788,721.24

Of above, $361,611.89 was spent on Hobbs Brook Basin, and $318,434.54 was spent on Payson Park Reservoir.

WATER BOND ACCOUNT.

Whole amount of water bonds issued,	$4,500,000.00
Amount paid from sinking fund,	1,897,400.00
Leaving unpaid water bonds outstanding,	$2,602,600.00
From this deduct the present value of the water debt sinking fund, per trustees' account,	369,347.02
Leaving bonds to be paid from the sinking fund in the future,	$2,233,252.98

For further details as to the financial operations of the department we refer you to the Registrar's statement, which accompanies this report.

Water Bonds.

The authority to issue water bonds granted by the legislature in the several acts of 1892, for $500,000.00, 1894, for $1,000,000.00, and a small balance of $65,100.00 in connection with previous acts has been exhausted in the recent issue of bonds in November, and to continue the work for another year it will be necessary to go to the legislature for further authority to issue bonds.

The City Council recently authorized the Mayor to petition the legislature for authority to issue $1,000,000.00 more water bonds and it is expected this will be granted early in the session of 1897. We probably now have sufficient funds for all wants up to March next. This new issue of bonds will, according to our estimates, be apportioned about as follows, for 1897:

Completion of Hobbs Brook Basin, ...	$350,000.00
Completion of Payson Park Reservoir, . . .	20,000.00
Completion of new pumping engine, boilers, alterations of buildings at pumping station, etc., etc.,	55,000.00
Continuation of work around Fresh Pond, . .	25,000.00
General construction, ...	20,000.00
Land damages unsettled, ...	100,000.00
	$570,000.00

Leaving $430,000.00 to be applied for other and future uses.

New Supply Main from Stony Brook.

It is important to bear in mind that when the consumption of water reaches 8,000,000 to 8,500,000 gallons per day, the capacity of the delivery pipe connecting the Stony Brook system with Fresh Pond will be reached and a new pipe must then be laid parallel with the present 30-inch main, involving another issue of water bonds. The cost of this work (estimating the pipe as 42-

inch) will be about $400,000, according to the City Engineer's figures, based on $10 per running foot.

This has been considered always in connection with our estimate for developing the Stony Brook system. The Board hope it may not be necessary to do this for at least five years, and in order to defer the work as long as possible, we recommended to the City Council at its meeting August 18, 1896, that the Mayor be authorized to petition the next legislature for authority to take water from Charles River for purposes other than domestic, thus introducing the dual system which is used in some European cities, notably Frankfort-on-the-Main, and with very satisfactory results. If by doing this the laying of another main from Stony Brook Reservoir to Fresh Pond could be delayed for a longer time it would, we believe, prove a wise and economical measure. Those who have studied the proposition carefully and from long experience believe this dual system can be most satisfactorily adopted in Cambridge. We regret to report that this matter has not yet been considered carefully by your honorable board; we hope it will be another year.

We are endeavoring in every possible way to keep the consumption of water to as low an amount as possible so as to avoid laying this new pipe for some time to come. The increase in consumption of water in 1896 over 1895 was 592,138 gallons per day, or about 9 per cent. This is a much larger percentage of increase than the year before over 1894, which was only 172,338 gallons per day, or 3 per cent. Taking the average increase per day (461,823 gallons) in the use of water the last five years, and applying it to the next five years, we should reach the capacity of our present supply main from Stony Brook to Fresh Pond in four years, or the early part of 1901. This is estimated as follows:

Supply by Stony Brook pipe and Fresh Pond from natural sources, ...	8,500,000 gallons
Daily average consumption, 1896 . . .	6,594,280 gallons
Margin for increased consumption per day,	1,905,720 gallons

Dividing this by the average increase the last five years, 461,823 gallons per day, in a little over four years we should exhaust the present margin of 1,905,720 gallons. It is interesting in this connection to refer to an estimate made by Mr. Stearns of the Metropolitan Water Supply Commission, that our city would, in 1895, reach a consumption of 7,000,000 gallons per day (see page No. 360, City Documents, 1893). It will be two years later than he estimated before that consumption will be reached.

This indicates the difficulty of accurately determining the future increase of the use of water. But it is well to bear in mind that an unexpectedly large increase in consumption may come when the whole city is supplied from the new high service reservoir at Payson Park. The increased pressure (nearly double the old service pressure) must inevitably lead to a greater waste of water; some estimate as high as 25 per cent increase. To restrict this, regulator valves have been put on the new 40-inch supply at Huron avenue near the pumping station, and it is hoped that the pressure can be so governed as to avoid a large increase in the waste of water. If the estimate of 25 per cent increase should prove to be correct when the high service is applied to the whole city another summer, we shall speedily reach the limit of our supply pipe from Stony Brook Reservoir and have to put in the new pipe by 1898.

We refer to this to show your honorable board how difficult it is to plan very far ahead on some important estimates until our system, now under way, is completed and we can make our calculations from experience. It will also be seen how important it is to utilize all available sources of supply to defer as long as possible the double line of pipe referred to.

Payson Park Reservoir.

The work at Payson Park Reservoir was resumed early last spring, but not as we wished, and much of the work already done was found to be defective. Not being able to reach any satisfactory results with the contractor, Mr. Malone, the Board, finding the work was likely to drag over another year and be a source of constant trouble and dispute, made a settlement through the City Solicitor and by his advice. The work was after that completed under the immediate supervision of the City Engineer, and by Cambridge men, so far as they could be secured. The results have been far more certain and satisfactory than the contract work. This work was commenced by the city in June last and was practically completed in November, and seems to be substantial and strong. The bottom of the southerly half of the reservoir has been covered with asphalt over concrete, and the northerly half with Portland cement over concrete. The future will determine which is the better as to being water tight. Equally strong claims are made for each method. This reservoir has been constructed from plans made by our City Engineer and approved by Mr. A. Fteley of New York, one of the most eminent authorities on this subject in this country. Messrs. Rice and Evans of Boston have also acted as consulting engineers and the work has been approved thoroughly by them.

Water is now in both sections of the reservoir and the high service supply is at present from this source. Another summer the whole service of the city should come from this reservoir.

An ornamental and substantial brick and stone gate house has been erected during the year on the easterly side of the reservoir. From the top of the house a magnificent view of Cambridge and the surrounding country can be enjoyed, and this will doubtless soon become a popular resort. Few of our citizens are aware of the natural beauties of the Payson Park Reservoir site. There is no pleasanter drive in the vicinity of Boston than in this direction and around our Fresh Pond park system. The latter has become a very popular route for bicyclists.

Fresh Pond.

Work has been continued this year without interruption until last month in developing the ground on the westerly side of the pond, and the results are very gratifying. Messrs. Olmsted, Olmsted & Eliot, the landscape architects, have the direction of this, and Mr. Stillman F. Kelley of our Board, under whose immediate supervision the work has gone on, has given much valuable time and thought to this important part of our plans.

Some complaint has been made because the filling on Huron avenue on the westerly side of the pond has obscured the view from that part of the road. But in making the circuit of the pond it will be quickly apparent from the easterly side of it that the westerly slope has been made to conform to and harmonize with the undulating surface beyond, and is both beautiful and artistic.

The Board are undecided as to what extent this work shall be prosecuted another year. To properly complete the plans for grading and filling the Fresh Pond area will require a large outlay of money; but when completed we are confident of the approval of our fellow citizens. Fresh Pond park must always be a most attractive and beautiful resort, while no part of the expense will have come from the general tax levy.

The water in the pond has been at an average grade of 14.64 or 2.21 feet below high water—16.85.

In consequence of the somewhat turbid condition of the water in the Stony Brook Basin, because of excavations at Hobbs Brook and the low stage of water there during the summer and early fall, connection with Fresh Pond was cut off for several weeks in October and November to allow the water at Stony Brook Basin to settle and rise to its normal level. This caused the water in Fresh Pond to go down to grade 10.95, when the water from Stony Brook was again let on and Fresh Pond is now filling up for winter.

Engine House and New Pump.

The new pumping engine was to have been completed last July, but from various causes the work has progressed so slowly that it will probably be next summer before the new pump will be in operation. That the work is being done in a very thorough and complete manner there is no doubt, and regular reports of progress are made by Mr. Leavitt's superintendent. Aside from the long delay no complaint can be made.

The work for the foundation to the new pump was prosecuted all of last winter and spring and was completed to our entire satisfaction. This large "hole in the ground" awaits its monster occupant with impatience.

To accommodate the new Belpaire boilers, which should be completed this winter, it has been necessary to extend the engine house between the chimney and screen room 13x33 feet, at an expense of $4,427.00. The contract was made with C. E. McKinnon and will soon be completed.

The present high and low service pumps are in good order, and one of the low service 10,000,000-gallon pumps will be altered early another year so as to be used as a relief pump to the new 20,000,000-gallon pump and until the new one is in operation. A fire proof coal shed should be constructed another year to avoid any danger to our engine house from spontaneous combustion of coal. The recent fire in the coal sheds of the Boston & Maine Railroad indicates the liability to this danger.

Stony Brook Basin.

This basin, which contains 71.7 acres and 300,000,000 gallons available supply of water, is in excellent order. Mr. Silas Baxter, since its completion, has had charge of the basin, attending dilligently and satisfactorily to his duties there.

The Supreme Court has recently decided against the city in the claim of Mr. Roberts for water damages at Stony Brook Basin, referred to in our report last year. The details of the decision of the court are now being arranged, as to the supply of water ordered for Mr. Roberts. The Board are unable, in view of the facts in the case, as they know them, to account for this decision.

Hobbs Brook Basin.

Great progress has been made in the work here. Winter street dam has been completed (all but some slight surface grading), also the gate house and fence. This seems to be a substantial piece of work.

The Lincoln street dam was completed early last fall, and by the first of the new year it is hoped we shall begin to store water in the upper basin.

On account of the decision of the Board to make further excavation than was originally intended in the extreme northwesterly end of the upper basin, the work could not be completed as early as anticipated in our last report. A filter dam has been put in at this part of the basin and all of the work commenced in the upper basin two years since is now completed, exposed points rip-rapped, and the water stored here will rest on a clean, sandy and gravel bottom and banks, free of all deleterious matter —a great improvement over what it has been in past years, since connection was made with Stony Brook.

It is expected we can store 300,000,000 gallons of available water here on an average depth of about nine feet, and that the basin above Lincoln street dam can be filled easily during this winter, and this with our Stony Brook Basin will insure a constant supply of water until the larger basin is completed. The size of this upper basin is 291.09 acres.

Lower Basin.

The work of excavation has progressed quite rapidly here. Section "C" is nearly completed; section "D" is completed; section "E" is nearly completed; and on sections "F," "G," "H," "I" and "J" considerable work has been done and the excavations on these sections should be completed by next summer.

These sections were divided into as nearly equal parts as practicable, intending in this way by subdividing to secure more reasonable bids for the work than had they all been one contract. The result proved the correctness of this position. The total area of the lower basin is 692.21 acres.

The average contract price of stripping sections "A" and "B," which are above Lincoln street dam, was about nineteen cents per cubic yard. The average contract price for stripping sections "C" to "J," which are below Lincoln street dam, and comprise the entire lower basin, was about twenty-three cents, ranging from nineteen to twenty-seven cents, per cubic yard.

The estimated total excavation in the lower basin will be 1,670,000 cubic yards, and in the upper basin 330,000 cubic yards.

The Board considered carefully, and for a long time, as to the depth these excavations should go, and finally decided to strip the soil to a depth sufficient to give a clean gravel or sand bottom to the whole basin, this being the safest plan for preservation and purity of the water, and, in the long run, the most economical, although adding considerable to the expense at first. One of the large basins of the Boston system had to be drawn off and dug deeper, at greatly increased expense, because of insufficient excavation at the start, and we did not wish to repeat the mistake. From a sanitary point of view the condition of the entire basin as a storage reservoir is excellent.

Land Damages.

Most of the cases of land damages have been settled either directly with the city, or through commissioners whose awards somewhat surprised us, as indicating a value to farm property not quite in accord with the popular belief. Possibly it has been left for the City of Cambridge to be used as the lever to lift the value of farm lands in Massachusetts. Some additional land (about fifteen acres) has been recently taken by the city, because it was found impossible to settle for land damages in this case on any reasonable basis, and early in the year about forty acres beyond Middle street, Lincoln, were purchased to protect one of the sources of supply.

Sanitary Conditions.

During the summer, an unusual number of typhoid fever cases developed in Cambridge, mostly in ward four. Some fear was excited lest the public drinking water might have been the cause of this. After a most thorough and searching investigation by our local board of health, assisted by Professor Sedgwick of the State Board of Health, and Dr. J. L. Hildreth of Cambridge, it was unanimously decided that neither directly nor indirectly did the city water have anything to do with the disease, but rather the trouble was from the milk taken from one dealer who supplied most of the families where the fever existed.

As the fall was approaching and typhoid fever would, as usual, be on the increase for a while, the Board felt that a responsibility of unusual gravity rested on them to do all in their power to keep the source of the city water supply free from contamination. Of course, with so many hundred laborers at work at Hobbs Brook Basin, more or less impurity would inevitably be deposited near the brook. How should this be prevented from entering the water? Two or three cases of typhoid fever were reported to the Board by one of our regular physicians at the brook. These were at once removed to Cambridge Hospital. It was decided, without delay, to form an advisory board, consisting of the two physicians in Lexington and Weston already employed by the Board, with Dr. Greenwood, the physician to the Waltham Board of Health, Dr. J. L. Hildreth of Cambridge (who had charge of the cases already referred to as sent to Cambridge Hospital), and Dr. Spencer, chairman of the Cambridge Board of Health. In addition to these, a specialist was added—Professor W. T. Sedgwick of the State Board of Health.

A most thorough and rigid inspection of the entire Stony Brook system was made. Everything likely to affect the water supply in connection with the large number of laborers there, and everything likely to flow into the basin from any dwelling house, privy, stable or any other source, was critically examined and remedies and preventatives were at once adopted as suggested by this medical board.

Several dwelling houses and barns within the area of the basin were burned after being dismantled—nothing belonging to the city was even allowed to be taken away—all were committed to the flames. Professor Sedgwick assured our Board that he never before had known such careful and vigorous measures to be taken by a water board for the protection of the public water supply.

Repeated analyses of Fresh Pond, Stony Brook Reservoir, Stony and Hobbs Brooks, have been and continue to be made, with assurance that Fresh Pond water is very free from any impurities. The decided taste which has lately been noticed is because of the water coming over so large a portion of meadow land recently dug up and the usual vegetable taste at this season of the year. But this does not injure the water, so far as health is concerned, and will shortly disappear.

As soon as the water in the upper basin commences to be stored, next month, the water will become less turbid in Hobbs Brook, and before another year is ended all water from Hobbs Brook Basin will flow over a clean, sandy bottom.

As the several recommendations of the advisory board have now been carried out, the Water Board have decided to continue, during the remainder of the time the work is in progress, the two local physicians in Waltham and Weston, of the advisory board, who, with Professor Sedgwick, will carefully watch and advise as to the continued preservation of the purity of the water. Two men are each day patrolling the basin to inspect the sanitary arrangements and disinfect all excrement or other pollution and keep it away from the brook.

We have dealt at length with this subject because it has occupied more time and anxious thought than all the other work of the year. As the result of our last conference with the advisory board the following circular letter was sent to all the physicians of Cambridge and the weekly papers. It needs no comment.

CITY OF CAMBRIDGE,
OFFICE OF THE CAMBRIDGE WATER BOARD,
CITY HALL, November 23d, 1896.

To the Citizens of Cambridge:

In view of exaggerated reports which have appeared, the Water Board deems it wise to make the following official statement for the information and guidance of the public.

In September last there appeared on the water-shed of Hobbs Brook a number of cases of typhoid fever, of which several were among the workmen engaged in constructing the new storage reservoir, which is at least twelve miles from Fresh Pond. The whole number of cases found, then and since, on or near the entire water-shed, is twenty-two, of which only ten occurred among the nearly two thousand (2,000) laborers and officials employed by the Water Board. As soon as the cases appeared, the Water Board, as a safeguard, immediately added to the able medical staff previously on duty at the basin, Dr. Spencer, chairman of the Cambridge Board of Health, Dr. J. L. Hildreth of Cambridge, Dr. Greenwood, physician to the Waltham Board of Health, and Professor W. T. Sedgwick of Boston, and the recommendations of this advisory board have been promptly executed.

We are informed by the advisory board that the sanitary condition of the water supplied to the citizens of Cambridge is now and, so far as it can learn, has been, excellent, and that there is and has been, thus far, no reason to attribute any cases of typhoid fever to the public water supply.

All the cases on the water-shed, as discovered, have been promptly cared for, and it is hoped that no recurrence of the trouble will take place. The addition of new reservoirs to a public water supply necessarily entails the temporary presence on the water-shed of a large and shifting population with attendant dangers; but your Board is fully alive to these facts, and will continue to use every effort to maintain the sanitary excellence of the city water.

JAMES M. W. HALL,
GEORGE H. HOWARD,
STILLMAN F. KELLEY,
FRANK A. ALLEN,
WELLINGTON FILLMORE,
Cambridge Water Board.

One matter should at once have the attention of the City Council—to bring before the legislature early in the next session a bill for more adequate protection of water supplies from deliberate and designed attempts to pollute the water and force a city to buy or take land for which it has no need. This is a growing evil, and all cities and towns in the commonwealth, having a public water supply, should, without delay, combine for public protection.

It is almost inconceivable that for mere mercenary purposes so diabolical a plan could be devised as to attempt to pollute a water supply, but every city has this experience, and some local boards of health are either unwilling or unable to interfere. It is clearly the duty of the legislature to impose by law such restrictions and safeguards as will adequately protect the rights of water supply secured from the state, and we are confident it should be done without further delay.

Water Rates.

We strongly recommend to the City Council that no change be made in water rates for the coming year. Of the water bonds to mature, only $28,500 come in the next ten years—$16,000 in 1897 and $12,500 in 1898, and then nothing until 1906. On account of the large issue of bonds the last two years, the interest and sinking fund is already increased $30,000 per year, and with the prospective issue of bonds the next five years, this will increase the fixed charge $75,000 a year, at the least, to be supplied from water rates. The most careful attention must be given to the matter of water rates or it will be necessary to provide any deficit in revenue below expenses from the general tax levy, as some cities do. The time has come when an emphatic protest must be entered against any further reduction of water rates.

Renewals and Extensions.

The cost of renewing old pipe has been $49,000 and extensions $20,000. As compared with 1895, the amount expended on renewals has been $4,000 more and on extensions $2,500 more.

Eight miles of renewal were laid in 1896, and considerable old cement lines of pipe taken out. It is expected that six miles of renewal will be required for 1897. The estimated cost of renewal of 6-inch to 12-inch pipe is about $6,000 per mile.

For further details we refer you to the Superintendent's report, which accompanies this.

Fitchburg Railroad Tracks at Fresh Pond.

By authority of the City Council, the Mayor has been authorized and requested to petition the next legislature for authority to take the land now occupied by the Fitchburg Railroad freight tracks within the Fresh Pond area. The Fitchburg railroad is willing to settle with the city amicably and reasonably, but the City Solicitor thinks neither the city nor the railroad company can make a settlement without further authority from the legislature.

Cambridge Reservoir.

The reservoir and standpipe on Highland street are in good condition. When the new service from Payson Park Reservoir is supplied to the city, the old reservoir site will, probably, eventually be disposed of for building purposes, as Boston did with its Beacon Hill reservoir; but it is not necessary to decide this matter at present.

Overflow at Stony Brook.

It is surprising what an amount of water has gone to waste over Stony Brook dam, the last year.

From October 15, 1895, to June 15, 1896, Stony Brook Reservoir continually overflowed, excepting only nine days; and at times the overflow reached as high as 239,300,000 gallons in one day.

The total overflow from November 30, 1895, to November 30, 1896, was 5,704,700,000 gallons, or equal to 865 days' supply for the City of Cambridge, on the present basis of consumption.

The Superintendent's report will give further interesting statistics in this line.

Office Work.

The work of the Registrar has greatly increased the last few years. The bills for water rates the last year, as sent from the office, amounted to $290,153.30; of the same, there remain unpaid November 30, 1896, $1,667.48, including the bills for metered water due from Middlesex County.

The work of the office has been faithfully and carefully discharged. The salary of the Registrar's assistant, Mr. H. L. Lincoln, has recently, by the advice of the Board and approval of the Finance Committee, been increased $200 per annum, to $1,200, a worthy recognition of faithful and long service.

The clerks have all been faithful, courteous and diligent, and the Board commend their work to your approval.

The Engineer, Mr. E. C. Brooks, has continued to act as Superintendent, and in his dual capacity has performed his onerous duties to the entire satisfaction of the Board. As soon as the new pumping engine is in operation it will be necessary to divide these duties, as the Superintendent after that will need to give his whole time to the general work and care of our city's vast water system.

Mr. C. B. Parker, the Assistant Superintendent, has proved to be efficient, competent and faithful and the Board, with pleasure, refer to his work.

Mayor Bancroft has afforded us much valuable assistance and advice in his unremitting and courteous attention to the requests of the Board. He has kept constantly in touch with the work and has accompanied us in our inspection of the basin. He will bear with him, as he returns to private life, our sincere and affectionate regard and regret that we are to lose his valuable co-operation.

The work of the Board has been marked by unfailing harmony and unanimity of opinion among its members, and the relations of the Board to the City Council have continued of a most pleasant character. This feeling of mutual confidence and respect is essential to the successful prosecution of the work.

The business of the Water Department demands firm adherance to business principles. Large trusts are committed to their care. The Board expects to discharge these with only one end in view, the best interest of the city of Cambridge. Our fellow citizens have a right to expect this of us. To the best of our ability, guided by conscientious convictions of duty, we shall endeavor to continue to discharge the obligations of this important public trust.

JAS. M. W. HALL, GEORGE H. HOWARD, STILLMAN F. KELLEY, FRANK A. ALLEN, WELLINGTON FILLMORE,	*Cambridge Water Board.*

REPORT OF THE WATER REGISTRAR.

Water Registrar's Office,
Cambridge, December 10th, 1896.

To the Cambridge Water Board:

Gentlemen:—In compliance with the requirements of the City Ordinance, I present the thirty-second annual report of the operations of this department, showing the receipts, expenditures and abatements, together with a statement of the number of water takers, etc., for the year ending November 30th, 1896.

Amount of bills remaining unpaid, Nov. 30th, 1895:

Water rates	$488.35
Meter rates	749.35
Supplies and repairs	2,662.49
Off and on	90.00
Seals	7.75
Rent	687.34
Maintenance account	331.23
Construction account	83.07

Amount of bills placed in hands of City Treasurer for collection, from Nov. 30, 1895, to Nov. 30, 1896:—

Water rates	$215,616.87	
Meter rates	73,298.73	
Supplies and repairs	7,121.88	
Off and on	650.00	
Seals	141.75	
Rents	1,255.21	
Maintenance account	768.17	
Construction account	507.20	
Total bills		$304,459.39

There has been collected:—

Water rates	$211,874.12
Meter rates	71,808.37
Off and on	600.00
Seals	143.50
Supplies and repairs	7,218.56
Rents	1,262.08
Maintenance account	504.58
Construction account	457.90

There has been abated:—

Water rates	$4,132.60	
Supplies and repairs	40.60	
Construction account	6.69	

There remain unpaid:—

Water rates	$181.00	
Meter rates	2,189.71	
Supplies and repairs	2,525.21	
Off and on	108.00	
Seals	5.50	
Rent	680.47	
Maintenance account	594.82	
Construction account	125.68	
		$304,459.39

Expenditures.

Construction account (general)	$19,902.53	
Construction account (Fresh Pond Reservoir)	65,991.86	
Construction account (Hobbs Brook Reservoir	361,611.89	
Construction account (Payson Park Reservoir)	318,434.54	
Construction account (Fresh Pond land)	98.50	
Maintenance account (general)	26,244.74	
Maintenance account (office)	5,296.09	
Maintenance account (pumping)	14,415.11	
Maintenance account (renewal of main pipe)	48,766.24	
Maintenance account (Stony Brook Reservoir)	997.57	
Supply account	6,482.62	
		$868,241.69

Abatements.

Water rate bills to the amount of	$4,132.60	
Supply and repair bills to the amount of	40.60	
Construction account (general) to the amount of	6.69	
		$4,179.89

Refunds.

Water rates to the amount of	$2,652.49	
Which amount deducted from the receipts	283,682.49	
Leaves net receipts for water	$281,030.00	
Add off and on, rents, seals and maintenance account	2,510.16	
Makes net receipts of "rates, fines, etc."		$283,540.16

Off and On.

Water has been shut off for non-payment of rates or per order on account of vacancy, and seals have been applied to fixtures by request of owners, as follows:—

Water shut off in 1896	679
Supplies let on, shut off in 1896	436
Supplies let on, shut off in previous years	99
New supplies let on	448
Seal locks applied to fixtures in 1896	964
Seal locks removed, put on in 1896	457
Seal locks removed, put on in previous years	368

68 supplies are located in Somerville and are now supplied with Mystic water.

Statement of the yearly revenue received from water rates since the purchase of the works by the city:—

From April 28, 1865, to Dec. 1, 1865	$32,367.19
From Dec. 1, 1865, to Dec. 1, 1866	40,073.27
From Dec. 1, 1866, to Dec. 1, 1867	52,733.62
From Dec. 1, 1867, to Dec. 1, 1868	63,747.42
From Dec. 1, 1868, to Dec. 1, 1869	76,149.30
From Dec. 1, 1869, to Dec. 1, 1870	92,605.95
From Dec. 1, 1870, to Dec. 1, 1871	111,782.65
From Dec. 1, 1871, to Dec. 1, 1872	127,201.30
From Dec. 1, 1872, to Dec. 1, 1873	146,117.32
From Dec. 1, 1873, to Dec. 1, 1874	153,634.27
From Dec. 1, 1874, to Dec. 1, 1875	138,880.37
From Dec. 1, 1875, to Dec. 1, 1876	179,166.76
From Dec. 1, 1876, to Dec. 1, 1877	154,843.59
From Dec. 1, 1877, to Dec. 1, 1878	157,443.91
From Dec. 1, 1878, to Dec. 1, 1879	164,681.90
From Dec. 1, 1879, to Dec. 1, 1880	173,325.49
From Dec. 1, 1880, to Dec. 1, 1881	170,062.73
From Dec. 1, 1881, to Dec. 1, 1882	177,430.80
From Dec. 1, 1882, to Dec. 1, 1883	179,361.89
From Dec. 1, 1883, to Dec. 1, 1884	161,526.27
From Dec. 1, 1884, to Dec. 1, 1885	185,544.36
From Dec. 1, 1885, to Dec. 1, 1886	199,404.43
From Dec. 1, 1886, to Dec. 1, 1887	204,748.64
From Dec. 1, 1887, to Dec. 1, 1888	211,156.27
From Dec. 1, 1888, to Dec. 1, 1889	221,124.70
From Dec. 1, 1889, to Dec. 1, 1890	231,116.32
From Dec. 1, 1890, to Dec. 1, 1891	227,054.53
From Dec. 1, 1891, to Dec. 1, 1892	237,527.08
From Dec. 1, 1892, to Dec. 1, 1893	242,219.78
From Dec. 1, 1893, to Dec. 1, 1894	250,032,71
From Dec. 1, 1894, to Dec. 1, 1895	266,813.62
From Dec. 1, 1895, to Dec. 1, 1896	281,030.00

Comparative Statement.

	1895.		1896.	
CONSTRUCTION ACC'T (PAYSON PARK RESERVOIR)				
Received.				
From bonds issued .	$440,000 00		$320,000 00	
From premium on bonds sold . . .	33,264 00		21,120 50	
Overtime on pay rolls etc.		$473,264 00	17 40	$341,137 90
Expended.				
Forty-inch pumping and distributing mains, Payson Reservoir, etc . .	$249,798 16		$318,434 54	
Balance of appropriation	223,465 84	$473,264 00	22,703 36	$341,137 90
CONSTRUCTION ACC'T (HOBBS BROOK RESERVOIR)				
Received.				
From bonds issued .	$425,000 00		$411,000 00	
From sale of grass, feed, wood, etc. .	796 78		119 50	
From premium on bonds sold . . .		$425,796 78	20,217 00	$431,336 50
Expended.				
In settlement for estates taken, building Winter and Lincoln St. dams, and stripping a portion of the basin	$182,065 50		$361,611 89	
Balance of appropriation	243,731 28	$425,796 78	69,724 61	$431,336 50
CONSTRUCTION ACC'T (FRESH POND LAND.)				
Received.				
From bonds issued .	$65,000 00		$65,000 00	
From sale of buildings on White estate .			300 00	
From premiums on bonds sold . .		$65,000 00		$65,300 00
Expended.				
Settlement for estates taken	$4,958 35		$98 50	
Transferred to Payson Park and Fresh Pond Reservoir Acc'ts			60,000 00	
Balance of appropriation	60,041 65	$65,000 00	5,201 50	$65,300 00

Comparative Statement — Continued.

	1895.		1896.	
CONSTRUCTION ACC'T (FRESH POND RESERVOIR).				
Received.				
From bonds issued .	$17,153 46		$46,000 00	
From excess of receipts from "rates, fines, etc." . . .	25,000 00		20,000 00	
From sale of plants .	13 88			
From premium on bonds sold . . .		$42,167 34	5,396 79	$71,396 79
Expended.				
For filling and grading at Fresh Pond .	$42,167 34		$65,991 86	
Balance of appropriation			5,404 93	
		$42,167 34		$71,396 79
CONSTRUCTION ACC'T (GENERAL).				
Received.				
From bonds issued .	$16.676 71		$20,000 00	
From fire supplies put in on premises, etc., etc.	1,022 86		21 00	
From sale of gravel and old iron . .		$17,699 57		$20,021 00
Expended.				
Sundry bills . . .	$17,699 57		$19,902 53	
Balance of appropriation.			118 47	
		$17,699 57		$20,021 00
MAINTENANCE ACC'T				
Received.				
From rates, fines, etc.	$267,661 27		$283,035 58	
Sale of grass, wood, old iron, etc. . .	1,062 11		504,58	
Accrued interest on water bonds sold .	1,555 56	$270,278 94	1,899 34	$285,439 50
Expended.				
Care and repairs .	$92,056 82		$95,719 75	
Interest on water debt	81,615 00		89,225 00	
Paid to sinking fund commissioners . .	69,142 50	$242,814 32	77,542 50	$262,487 25
Excess of receipts .		$27,464 62		$22,952 25
SUPPLY ACCOUNT.				
Received.				
Pipe and labor on supplies		$8,659 15		$7,218 56
Expended.				
Sundry bills for stock and labor . . .		$6,905 02		6,482 62
Excess of receipts .		$1,754 13		735 94

Comparative Statement — Continued.

1895.	Maintenance account, excess of receipts	$27,464 62	
	Supply account, excess of receipts . .	1,754 13	
	Excess of total receipts over total expenditures	29,218 75	
	Transferred to Construction Account (Fresh Pond Reservoir)	25,000 00	
	Balance due the Sinking Fund . .		$4,218 75
1896.	Maintenance Account, excess of receipts	$22,952 25	
	Supply Account, excess of receipts . .	735 94	
	Excess of total receipts over total expenditures	23,688 19	
	Transferred to Construction Account (Fresh Pond Reservoir)	20,000 00	
	Balance due the Sinking Fund . .		$3,688 19

In addition to the manufactories, etc., supplied through meters, water is supplied to 19,577 families; 1,035 stables, with 3,271 horses and 267 cows; 303 shops; 792 offices and stores by the following fixtures, viz:—

23,002 faucets,
7,479 wash basins,
8,119 wash tubs,
5,928 bath tubs,
491 slop closets,
18,458 pan closets.
7 hopper closets,
94 urinals,
19 yard hydrants,
5 fountains,
47 tumbler washers,
2,096 hand-hose,
9 motors.

Also,

890 fire-hydrants (besides 19 on private premises),
8 fire reservoirs,
23 drinking fountains in public squares,
59 street-watering standpipes,
4 public sanitaries.

The above schedule of fixtures does not include those in school houses, engine houses, police stations, and other city buildings.

The usual house-to-house inspection of the service pipes and fixtures on the premises of the water takers has been made with the usual satisfactory and remunerative results.

Respectfully submitted,

WALTER H. HARDING,
Registrar.

ANNUAL STATEMENT OF THE WATER REGISTRAR TO THE COMMITTEE ON ACCOUNTS, DEC. 1, 1896.

Water rates unpaid, November 30th, 1895	$1,237.70
Off and on bills unpaid, November 30th, 1895	90.00
Rent unpaid, November 30th, 1895	687.34
Seals unpaid, November 30th, 1895	7.75
Maintenance account unpaid, November 30th, 1895	331.23
Construction account unpaid, November 30th, 1895	83.07
	$2,437.09

Bills placed in hands of City Treasurer for collection, from December 1, 1895, to December 1, 1896:—

Water rates from Annual Ledgers	$205,166.60
Water rates from Fractional Ledgers	10,450.27
Water rates from Meter Ledgers	73,298.73
Off and on water	650.00
Rent	1,255.21
Seals	141.75
Maintenance account	768.17
Construction account	507.20

Total bills on "Rates, fines, etc." Maintenance and Construction accounts		$294,675.02	
Supply and repairs bills unpaid, November 30th 1895,	$2,662.49		
Supply and repair bills placed in the hands of City Treasurer for collection, from December 1, 1895, to December 1, 1896	7,121.88		
		9,784.37	
Total bills			$304,459.39

There has been collected:—

Annual Ledgers	$202,708.70	
Fractional Ledgers	9,165.42	
Meter Ledgers	71,808.37	
Off and on Ledgers	600.00	
Rent Ledgers	1,262.08	
Seal Ledgers	143.50	
Maintenance account	504.58	
Construction account	457.90	
Supply and repair account	7,218.56	
Total collections		$293,869.11

There has been abated:—			
Water rates	$4,132.60		
Supplies and repairs and construction account	47.29		
There remain uncollected:—			
Water rates	2,370.71		
Supplies and repairs	2,525,21		
Off and on	108.00		
Seals	5.50		
Rent	680.47		
Maintenance account	594.82		
Construction account	125.68		
		10,590.28	
			$304,459.39
Total bills for collection		$304,459.39	
Less abated	$4,179.89		
Less refunded	2,652.49		
Less unpaid	6,410.39		
		13,242.77	
Net receipts			$291.216.62

Attest: WALTER H. HARDING,
Registrar.

CAMBRIDGE, December 8th, 1896.

We have examined the accounts of the Water Registrar and find that they correspond with the statement submitted by the City Treasurer and the Auditor in every particular.

FRANK A. ALLEN, } *Committee*
STILLMAN F. KELLY, } *On Accounts.*

CITY OF CAMBRIDGE,
OFFICE OF THE CITY TREASURER,
December 1, 1896.

To the Cambridge Water Board:

Gentlemen:—I give you herewith a record of the transactions between the Water Office and the City Treasurer's office during the year ending November 30, 1896.

Gross collections for account of Water Works, "Rates, fines, etc."	$289,820.67
Abatement certificates received and paid on "Water Rates"	4,132.60
Gross collections for account of Water Works, "Supply Account"	7,265.85
Abatement certificates received and paid on "Supply Account"	47.29
"Refund" certificates have been presented and paid to the amount of	2,652.49

Uncollected bills in my hands November 30, 1896, for account of "Maintenance, Construction and Water Rates," amount to . .	3,885.18
Uncollected bills in my hands November 30, 1896, for account of "Supplies, Repairs, etc.," amount to	2,525.21
Gross collections for account of Water Works, "Construction, General Account"	21.00
Gross collections for account of Water Works, "Construction, Fresh Pond Land"	300.00
Gross collections for account of Water Works, "Construction, Hobbs Brook Reservoir"	119.50
Gross collections for account of Water Works, "Construction, Payson Park Reservoir"	17.40
Gross collections for account of Water Works, "Maintenance, General Account"	504.58

Very respectfully,

WILLIAM W. DALLINGER,
City Treasurer.

I have examined the above statement and find the same correct.

HARRY T. UPHAM,
City Auditor,

REPORT OF THE SUPERINTENDENT OF WATER WORKS.

CAMBRIDGE, December 1, 1896.

To the Honorable Water Board of the City of Cambridge:

Gentlemen:—In compliance with the City Ordinance, I herewith submit the thirty-second annual report of the Superintendent, for the year ending November 30, 1896.

Consumption.

The total quantity of water pumped during the past year was	2,413,506,557	gallons.
High service, ...	228,149,757	gallons.
Low service, ...	2,185,356,800	gallons.
Daily average water pumped during the year, ...	6,594,280	gallons.
High service, ...	623,360	gallons.
Low service, ...	5,970,920	gallons.
Quantity of water sold by meter, . .	567,559,250	gallons.
Quantity of water used for sprinkling streets, ...	76,973,300	gallons.
Quantity of water used for drinking fountains, ...	30,000,000	gallons.
Quantity of water used for flushing sewers,	1,250,000	gallons.
Quantity of water used for cleansing sanitaries, ...	7,500,000	gallons.
Total, ...	683,282,550	gallons.
Leaving for domestic purposes, . . .	1,730,224,007	gallons.

Number of gallons daily for each inhabitant, on the total amount pumped, 75.90 gallons.

Number of gallons daily for each inhabitant, on the amount used for domestic purposes, including water for private stables, hose, building and fire purposes, 54.42 gallons.

Comparative Statement of Total Pumping During the Past 7 Years.

Date,	Total Yearly Pumping,	Increase or decrease	Average Daily Pumping.	Increase or decrease.	Gallons to each inhabitant daily.
1890	1,638,550,512	112,111,507 incr'se	4,489,178	307,155, increase.	62.35
1891	1,778,056,775	139,506,263 "	4,871,388	382,210, "	64.71
1892	1,961,362,760	183,305,985 "	5,358,914	487,526, "	66.00
1893	2,234,863,924	273,501,164 "	6,122,915	764,001, "	74.50
1894	2,127,878,627	106,985,297 decr'se	5,829,804	293,111, decrease.	69.19
1895	2,190,781,892	62,903,265 incr'se	6,002,142	172,338, increase.	71.65
1896	2,413,506,557	222,724,665 "	6,594,280	592,138, "	75.90

Comparative Statement of Domestic Pumping During the Past 7 Years.

Date.	Domestic Yearly Pumping	Increase or Decrease.	Average Daily Pumping.	Increase or Decrease.	Gallons to each Inhabitant daily.
1890	1,217,062,012	61,140,305, incr'se	3,334,416	167,507, increase	46.08
1891	1,270,360,425	53,298,413, "	3,480,439	146,023, "	46.24
1892	1,426,400,135	156,039,710, "	3,897,268	416,829, "	48.00
1893	1,668,235,574	241,835,439, "	4,570,509	673,241, "	55.61
1894	1,547,943,977	120,291,597, decr'se	4,240,942	329,567, decrease	50.34
1895	1,530,152,817	17,791,160, "	4,192,199	48,743, "	50.04
1896	1,730,224,007	200,071,190, incr'se	4,727,388	535,189, increase	54.42

Total amount of coal consumed, ...	3,711,600 lbs.
Daily average coal consumed, ...	10,141 lbs.
Coal consumed per million gallons pumped, .	1,537.84 lbs.
Highest water in Fresh Pond was on April 28, . . .	16.49
Lowest water in Fresh Pond was on Nov. 24, . . .	10.95
Highest water in Stony Brook Reservoir was on Feb. 7,	83.30

Lowest water in Stony Brook Reservoir was on Sept. 6,	66.19
Daily average height of Fresh Pond, ...	14.64
Total rainfall at pumping station, ...	38.82
Total rainfall at Stony Brook Reservoir, ...	50.52

Rainfall for the Last Ten Years.

Month.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
December . .	5.23	4.22	6.67	3.36	4.40	6.78	1.23	5.23	4.43	1.90
January . . .	5.28	3.32	6.64	2.94	6.68	4.32	1.87	3.05	3.57	2.46
February . .	4.66	3.95	2.81	5.22	4.61	2.46	6.43	2.91	1.07	5.62
March . . .	4.46	5.55	3.29	7.02	5.74	3.56	2.50	0.84	2.68	4.37
April	3.94	2.60	3.73	4.83	2.72	0.77	3.25	2.94	4.15	1.70
May	1.79	6.36	5.65	6.09	2.44	6.06	7.30	4.63	2.39	2.42
June	1.86	3.25	3.41	3.51	4.01	4.23	2.18	0.81	2.76	2.33
July	4.19	2.87	8.53	2.77	3.06	2.53	2.26	2.88	3.28	2.65
August . . .	4.10	7.08	3.78	3.48	3.68	6.11	5.95	1.63	4.71	2.45
September . .	1.36	8.28	5.30	4.05	2.73	1.84	1.76	2.40	1.83	6.29
October . . .	3.22	4.83	3.73	9.31	5.10	2.15	3.77	5.19	10.16	3.10
November . .	3.90	7.70	6.51	1.28	3.08	4.04	1.99	3.34	6.09	3.53
Total	43.99	60.01	60.08	53.80	48.25	44.85	40.49	35.85	47.12	38.82

Leakage.

Four hunderd and ninety-one leaks have been cared for as follows: One on the 30-inch Stony Brook pipe line; six on 20-inch main; one on 12-inch main; one on 10-inch main; one on 8-inch main; two on 6-inch mains; seven on 4-inch mains; three on 3-inch mains; two on hydrants; two on meters; one hundred fifteen in street on supplies; eleven on premises (reported at the office); two hundred ninety-nine on water closets; thirty-nine on faucets; and one on stop and waste (reported by inspector).

Table Showing a Gain or Loss in Total Consumption for the Year 1896 Over 1895.

	Total Consumption 1895.	Total Consumption 1896.	Increase or Decrease x or —
December	169,049,300	200,258,200	x 31,208,900
January,	183,412,815	241,778,675	x 58,365,860
February,	193,957,360	213,494,500	x 19,537,140
March,	170,548,450	211,862,820	x 41,314,370
April,	163,043,803	178,664,380	x 15,620,577
May,	188,377,081	200,833,380	x 12,456,299
June,	200,568,600	205,292,825	x 4,724,225
July,	192,251,840	206,993,245	x 14,741,405
August,	193,464,380	202,378,452	x 8,914,072
September,	188,626,178	188,293,415	— 332,763
October,	182,274,415	184,892,415	x 2,618,000
November,	165,207,670	178,764,250	x 13,556,580
Total . .	2,190,781,892	2,413,506,557	x 222,724,665

Fresh Pond and Surroundings.

The quality of the water has been good throughout the year and the pond level has been maintained at an average of 14.65 feet, or 2.21 feet below high water. The water from Stony Brook was shut off from October 11 to November 24.

The work of filling and grading around the pond has been carried on through the whole season; all work has been done in accordance with the plans of Olmsted, Olmsted & Eliot, along the westerly side of the pond. A large part of this section has been graded, loamed and planted with shubbery, and driveways and walks graded to sub-grade. The steep bank above the retaining wall has been planted with shrubs to prevent the loam from sliding. The driveways, borders and banks around the pond have received the usual care and all grass not needed has been sold.

Fishing in the pond has continued as during the past two years, one hundred ten permits having been used the past season.

Fresh Pond Reservoir.

	Lowest Point Reached During Month	Highest Point Reached During Month	Monthly Rainfall, Inches.	Intake Gate.			
				8 Inch Opening.		30 Inch Opening.	
				Opened Full Capacity.	Closed.	Opened 12 Inches.	Closed.
December 14, 1895	13.10		1.90	During entire month.			During entire month.
" 31, "		13.65					
January 23, 1896	13.41		2.46	During entire month.			During entire month.
" 28, "		13.74					
February 1, "	13.75		5.62	During entire month.			During entire month.
" 17, "		14.65					
March 1, "	14.71		4.37	During entire month.			During entire month.
" 31, "		15.93					
April 1, "	15.93		1.70	During entire month.			During entire month.
" 28, "		16.49					
May 28, "	16.17		2.42	During entire month.			During entire month.
" 6, "		16.47					
June 30, "	15.79		2.33	During entire month.			During entire month.
" 1, "		16.28					
July 30, "	15.17		2.65	During entire month.			During entire month.
" 1, "		15.74					
August 31, "	14.50		2.45	During entire month.			During entire month.
" 9, "		15.17					
September 5, "	14.37		6.29	During entire month.			During entire month.
" 11, "		14.68					
October 31, "	12.72		3.10		October 11.		During entire month.
" 2, "		14.42					
November 24, "	10.95		3.53	November 23.		November 24.	
" 1, "		12.64					
Total			38.82				

Pumping Station and Surroundings.

The dwelling houses and stable at the pumping station have been painted and the work of setting out shubbery about the grounds has begun, only a portion of which could be done, however, on account of the repairs and alterations to the building now going on.

The electric cable connecting the cross-over gate chamber and the reservoir with the pumping station is well along and should be finished in a few days.

Reservoir.

The reservoir on Highland street is in good condition; the banks and walks have received the usual care.

Pipe Yard.

The dwelling house and stable at the pipe yard have been repaired and painted, and are in good condition. I would recommend that the shed for the storage of gates and hydrants be lengthened to about double the present size.

Pipe Bridges.

The pipe bridges have received the usual inspection and repairs, and are in good condition.

Main Pipe.

The 40-inch distributing main extending from the Common to Payson Park Reservoir, and the 40-inch pumping main from the pumping station to the reservoir, were completed early in the present year. Water was pumped into the south basin of the reservoir in December last through a connection with the high service pumping main and the distributing main.

The chambers on Huron avenue, containing the gates and regulating valves and the connections with the pumping mains, have been completed. The chamber at the pumping station, with the gates and connections to the different mains, has been completed, with the exception of a short length of 40-inch main and the setting of the Venturi meter.

The connections with the new 40-inch mains at the Common and Craigie square have not been made, but will be early in the coming season.

The laying of the 48-inch water mains through the streets of the city by the Metropolitan Water Board has made necessary a large amount of work and many changes to the main pipes and supplies in the streets through which they have gone. The main pipes in the cross streets have been offset under the 48-inch pipe, and the supplies for all buildings on one side of the street have also been carried under, as the grade at which they would have to be laid to go over the 48-inch pipe was not deep enough to prevent freezing. In nearly all cases the pipes have been enlarged where offset, anticipating as far as possible future needs of increasing consumption.

Main pipes have been laid in the following streets: 482 feet of 6-inch in Aberdeen avenue; 67 feet of 6-inch in Allen street; 6½ feet of 6-inch in Amory street; 6½ feet of 6-inch in Auburn street; 255 feet of 6-inch and 2 feet of 4-inch in Banks street; 74½ feet of 6-inch in Beech street; 188 feet of 4-inch in Bell street; 257 feet of 6-inch in Bent street; 887½ feet of 6-inch in Berkshire street; 26 feet of 6-inch in Binney street; 65 feet of 6-inch in Blake street; 81 feet of 6-inch in Bolton street; 7½ feet of 6-inch in Bridge street; 250 feet of 4-inch and 40 feet of 6-inch in Buena Vista park; 62 feet of 6-inch in Cameron street; 229½ feet of 4-inch and 75 feet of 10-inch in Cedar street; 55 feet of 6-inch in Charles street; 1,214 feet of 6-inch in Cherry street (1,201 feet renewal); 356 feet of 6-inch in Chester street (294 feet renewal); 18 feet of 6-inch in Clarendon avenue; 398 feet of 6-inch in Clifton street; 35 feet of 6-inch in Cogswell avenue; 1,963 feet of 12-inch (renewal) and 30 feet of 6-inch in Columbia street; 50 feet of 12-inch in Concord avenue; 231 feet of 4-inch and 3 feet of 1½-inch in Cottage Park avenue; 35 feet of 6-inch in Creighton street; 71½ feet of 6-inch and 95 feet of 4-inch in Davenport street; 62 feet of 6-inch in Day street; 62 feet of 6-inch in Dover street; 35 feet of 6-inch in Dudley street; 48 feet of 6-inch in Dunster street; 13 feet of

6-inch in Eaton street; 613 feet of 6-inch in Erie street (481 feet renewal); 103½ feet of 6-inch in Eustis court; 35 feet of 6-inch in Fairmont street; 136 feet of 2-inch in Francis place; 62 feet of 6-inch at Frank street; 899 feet of 6-inch in Forest street (892 feet renewal); 2 feet of 4-inch in Foster street; 61 feet of 6-inch in Frost street; 348 feet of 6-inch in Garden street; 27 feet of 6-inch in Garfield street; 135 feet of 6-inch in Gilmore street; 50 feet of 6-inch in Glenwood avenue; 9½ feet of 6-inch in Gore street; 6½ feet of 6-inch in Green street; 61 feet of 6-inch in Hadley street; 15 feet of 6-inch and 8 feet of 8-inch in Hampshire street; 180½ feet of 4-inch and 3 feet of 1½-inch in Hancock park; 298 feet of 6-inch in Harris court; 606 feet of 2-inch in Harvard college grounds; 74 feet of 6-inch and 3 feet of 1½-inch in Harvey street; 35 feet of 6-inch in Haskell street; 752 feet of 6-inch in Hayes street (747 feet renewal); 537 feet of 6-inch in High street; 35 feet of 6-inch in Hollis street; 261 feet of 6-inch and 3½ feet of 1½-inch in Holmes street; 15 feet of 6-inch in Howard street; 15 feet of 6-inch in Jay street; 62 feet of 6-inch in Kidder street; 156 feet of 6-inch in Kildare street; 16 feet of 6-inch in Kinnaird street; 610 feet of 8-inch and 6 feet of 6-inch in Lansdowne street; 192 feet of 6-inch in Larch street; 35 feet of 6-inch in Laurel street; 504 feet of 6-inch in Lexington avenue; 75 feet of 6-inch in Lincoln street; 40 feet of 10-inch in Linnaean street; 157 feet of 4-inch and 7 feet of 6-inch in Magee street; 97 feet of 6-inch in Market street; 263 feet of 6-inch in Marney street; in Massachusetts avenue, 1,767 feet of 12-inch and 13 feet of 6-inch from Everett to Linnaean streets, 2,499 feet of 16-inch and 178 feet of 6-inch from Porters Station to Rindge avenue (renewal), 2,077 feet of 12-inch and 54 feet of 6-inch from Rindge avenue to Cedar street (renewal), 2 feet of 12-inch at Lansdowne street and 161 feet of 2-inch from Trowbridge street; 62 feet of 6-inch in Meacham street; 883½ feet of 6-inch in Mellen street (renewal); 363 feet of 6-inch in Museum street; 156 feet of 4-inch in Neill court; 35 feet of 6-inch in Norris street; 3 feet of 6-inch and 2½ feet of 4-inch in Orchard street; 333 feet of 6-

inch in Palermo street; 559 feet of 6-inch in Peters street; 1,019 feet of 6-inch in Pine street (renewal); 3½ feet of 12-inch in Pleasant street; 15 feet of 6-inch in Plymouth street; 63 feet of 6-inch in Porter road; 600 feet of 12-inch and 8 feet of 6-inch in Portland street; 6½ feet of 6-inch in Prospect street; 35 feet of 6-inch in Regent street; 152 feet of 2-inch in Rice circle; 502½ feet of 6-inch in Richdale avenue; 43 feet of 12-inch in Rindge avenue; 2,591 feet of 8-inch and 32½ feet of 6-inch in River street (renewal); 35 feet of 6-inch in Rockwell street; 62 feet of 6-inch in Russell street; 896 feet of 6-inch in Sacramento street (renewal); 24 feet of 4-inch in Sargent place; 38 feet of 6-inch in Saville street; 498 feet of 6-inch in School street (renewal); 15 feet of 6-inch in Seckle street; 250 feet of 6-inch in Seventh street; 1,537 feet of 12-inch and 34 feet of 6-inch in Sherman street (renewal); 116½ feet of 4-inch in Somerset street; 899½ feet of 6-inch in Spring street; 108 feet of 2-inch in Union street; 19 feet of 6-inch in Vassal lane; 178½ feet of 6-inch in Vine street; 129 feet of 24-inch, 2,168 feet of 20-inch (renewal), 35 feet of 12-inch and 27 feet of 8-inch in Walden street; 311 feet of 6-inch and 94 feet of 4-inch in Walnut court (renewal); 901 feet of 6-inch in Wendell street (renewal); 433 feet of 6-inch in Whittier street; 124 feet of 4-inch in Willard Street court; 35 feet of 6-inch in William street; 337 feet of 6-inch in Willow street; 3,941 feet of 12-inch and 47½ feet of 6-inch in Winsor street (renewal); 291 feet of 4-inch in Winthrop street (renewal); 62 feet of 6-inch in Woodbridge street; 144 feet of 6-inch in Worthington street; 73 feet of 6-inch in York street.

The small portion of 30-inch pipe at Mt. Auburn street, at the corner of Boylston street, has been removed to give the location to the Metropolitan pipe.

In the streets following, the main pipes have been offset for the accommodation of the Sewer Department: Berkshire place, Clay street, Clarendon avenue, Dyke street, Ellery street, Moore street, Oak street, Washburn avenue and court.

In Medford street, Somerville, the 4-inch main pipe has been cut off and capped. The City of Somerville has recently laid pipes to supply this district.

Five hundred twenty-five feet of 20-inch light weight pipe have been laid at Fresh Pond. This is an extension and completion of the drain from Richardson's Pond to Lily Pond.

On account of the blow-off at Massachusetts avenue and Linnaean street being an obstruction to the storm sewer, it has been removed.

The 40-inch pipe which runs from the pumping station to Payson Park was tapped in order to lay supplies to the Fresh Pond parks for the use of the landscape architects.

In order to give the Metropolitan Water Supply the location desired for its 48-inch pipe, the mains in the streets intersecting Boylston street, Harvard square, Magazine street, Massachusetts avenue and Norfolk street (in which streets the 48-inch pipe has been laid) have been offset as follows:

At Boylston street, Mt. Auburn, Winthrop, South and Eliot streets.

At Magazine street, Central square, Green, Franklin, Auburn, William, Cottage, Perry, Lawrence, Lake, Erie, Hamilton, Allston streets, Putnam avenue, Chestnut and Tufts streets.

At Norfolk, Austin, Washington, Suffolk and Worcester streets.

At Harvard square, Brattle street.

At Massachusetts avenue, Pearl street.

In the west side of Harvard square the old 20-inch main has been removed; a new 20-inch pipe has been furnished and laid by the Metropolitan Water Supply about five feet east from the location of the old pipe; the 48-inch Metropolitan main pipe now occupies the location of the old pipe.

The different sizes of pipes laid, their lengths and weights, are as follows:

Size.	Length in Feet.	Weight in Tons.
24 inches	129	14.28
20 inches	2,168	187.76
16 inches	2,499	150.60
12 inches	12,018½	466.38
10 inches	115	4.05
8 inches	3,236	69.34
6 inches	20,180	297.30
4 inches	2,143	18.17
Total	42,488½	1,207.88

I recommend that there be laid in the following streets new lines to take the places of old pipes which have been laid for a number of years and are in weak condition:

In Avon street, from Linnaean to Shepard streets, a 6-inch to replace the old 4-inch; in Banks street, from Cowperthwaite to Stiles streets, a 6-inch to replace the old 4-inch; in Blanche street, from Massachusetts avenue to Auburn street, a 6-inch to replace the old 4-inch; in Brattle street, from Fayerweather to Craigie streets, a 12-inch to replace the old 12-inch, and from Craigie street to Brattle square, a 10-inch to replace the old 12-inch and 10-inch; in Brookline street, from Massachusetts avenue to Erie street, a 6-inch to replace the old 4-inch; in Buckingham street, a 6-inch to replace the old 4-inch; in Chauncey street, a 6-inch to replace the old 4-inch; in Clark street, from Main street to Webster avenue, a 6-inch to replace the old 3-inch and 4-inch; in Cogswell avenue, entire length, a 6-inch to replace the old 4-inch; in Dana street, entire length, a 10-inch to replace the old 4-inch and 6-inch; in Dunster street, from Mt. Auburn to Winthrop streets, a 6-inch; in Eustis Court, from Oxford street, a 6-inch to replace the old 3-inch; in Fourth street, from Bridge to Charles streets, a 6-inch to replace the old 4-inch; in Garden street, from Mason to Kirkland streets, a 10-inch to replace the old 10-inch; in Holyoke street, from Massachusetts avenue to Mill street, a 6-inch to replace the old 3-inch and 4-inch; in Holyoke place, a 6-inch to replace the old 4-inch; in Jay street, from

Western avenue to Kinnaird street, and about 100 feet at River street, a 6-inch to replace the old 3-inch and 4-inch; in Kinnaird street, from Putnam avenue to River street, a 6-inch to replace the old 4-inch; in Lee street, from Broadway to Massachusetts avenue, a 6-inch to replace the old 4-inch; in Mason street, from Garden to Brattle streets, a 10-inch to replace the old 10-inch; in Maple avenue, from Broadway to Cambridge street, a 6-inch to replace the old 4-inch; in Norfolk street, from Massachusetts avenue to Austin street, and from Hampshire street to Broadway, a 6-inch to replace the old 4-inch; in Otis street, entire length, a 6-inch to replace the old 3-inch and 4-inch; in Pioneer street, from Broadway to Main street, a 6-inch to replace the old 4-inch; in Shepard street, from Garden street to Massachusetts avenue, an 8-inch to replace the old 4-inch and 6-inch; in Sherman street, to Rindge avenue, a 12-inch to replace the old 20-inch cement; in Sixth street, from Vine to Cambridge street, a 6-inch to replace the old 3-inch and 4-inch; in South street, from Dunster to Holyoke streets, a 6-inch to replace the old 4-inch; in Western avenue, from Blackstone street to the bridge, a 6-inch to replace the old 4-inch; in Winthrop street, from Boylston to Holyoke streets, a 6-inch to replace the old 4-inch.

Supplies.

Four hundred fifty-eight new supplies have been laid; the total number laid to date is thirteen thousand one hundred and thirty-nine.

Eighty-nine supplies have been renewed; six have been extended; fifty-three have been furnished with sidewalk shut-offs.

In the following streets, where the main pipes have been renewed, the supplies have been connected to the new mains and in many cases have been renewed: Chester, Cherry, Columbia, Erie, Forest, Hayes, Massachusetts avenue, Mellen, Pine, River, Sacramento, Seventh, School, Sherman, Spring, Walden, Walnut court, Wendell, Winsor and Winthrop.

For the accommodation of the Sewer Department, the supplies have been offset in the following streets: Ashton place, Bismark, Clarendon avenue, Clay, Clifton, Concord avenue, Dunster, Dyke, Washburn avenue and court.

One supply in Fayerweather street and one in Linnaean street have been connected to the high service.

In order to give the 48-inch main pipe of the Metropolitan Water Supply an unobstructed way, the supplies in the following streets have been offset: Boylston street, Harvard square, Magazine street, Central square, Massachusetts avenue and Norfolk street. The Metropolitan Water Supply is to pay the cost of all labor and materials.

Fountains.

The number of drinking fountains in use is twenty-three.

The fountains in Norton, Davis and Lechmere squares have received the necessary repairs.

High Service.

One hundred forty feet of 2-inch pipe have been laid in Massachusetts avenue from the high service pipe in Trowbridge street, east, to supply a large apartment house on Massachusetts avenue.

In Dunster street, the main pipe has been connected to the high service pipe in Massachusetts avenue; the gate at Mt. Auburn street is closed. The street from Harvard square to Mt. Auburn street is now on the high service.

The high service has been continued in Highland avenue to Greenough avenue.

Street Watering Standpipes.

Three new standpipes have been set during this year; two on Huron avenue and one on First street.

The standpipe at the corner of School and Pine streets has been removed to Austin street, corner of School street.

The standpipe on Bow street at the angle has been removed.

The standpipe formerly at the corner of Western avenue and Howard street has been relocated on Western avenue near Gilmore street, east.

On account of the widening of Boylston street, the standpipe has been relocated.

All of the standpipes have been inspected. About one-half of them have been furnished with new valves.

A new and corrected list has been made; the number now in use is fifty-nine.

Gates.

The gates have been inspected and marked; old 4-inch gates have been removed and new ones set at Cambridge street, at Binney street and at Summer street, corner of Amory street.

The 4-inch gate corner of Dodge and Magee streets has been remarked.

The old 16-inch gate at the corner of Putnam avenue and Western avenue has been removed. The tracks of the West End Street Railway Company were laid over the gate box; as it had been necessary to remove a portion of the tracks when using or examining the gate, the gate was removed at the company's request, it paying all expenses.

Fourteen new gates have been set on pipes which were offset for the Metropolitan Water Supply.

Boxes.

Two hydrants, one small and ten large wooden boxes, and six iron boxes have been set in place of old ones removed.

The boxes in Berkeley, Chestnut, Dana, Franklin, Murray, Sherman, Third and Walker streets have been raised.

The service boxes in Boylston street have been removed on account of the street widening.

The boxes in Green and Sidney streets have been lowered.

Check Valves.

The 6-inch check valve in Ellery street near Massachusetts avenue has been removed.

In order to supply the houses on Highland avenue hill, the gate at the corner of Greenough and Highland avenues has been closed and the high service extended to Greenough avenue.

The check valve is not used at present.

Meters.

The number of meters in use is 357.

Hydrants.

Fifty-one new hydrants have been set during the year.

Old flush hydrants have been removed and new post hydrants set as follows: Opposite 25 Hunting street (Holyoke); Magazine street (Chapman); Magazine and Cottage streets (Holyoke); Magazine and Franklin streets (Holyoke); Plymouth and Berkshire streets (Holyoke).

A new Holyoke hydrant has been set in place of Boston hydrant, broken, in Osborn street.

Flush hydrants have been removed in Magazine street and at the corner of Norfolk and Hampshire streets.

Flush hydrants have been set in place of old flush removed in Berkshire street.

The hydrant corner of Franklin and Bay streets has been reset.

Hydrants in First street have been raised and reset on account of change of grade in street.

In Boylston street, on account of the widening of the street, the hydrants have been relocated.

Attending the renewals of mains in the locations following, the flush hydrants have been removed; new posts have been set in the same location, or near by, and connected to the new mains:

In Cherry street, opposite Eaton street.

In Columbia street, corner Market street and corner Lincoln street.

In Forest street, corner Oxford street.

In Massachusetts avenue, corner Sacramento street, opposite Linnaean street, near Porters Station, at Allen street, between Dudley and Cameron streets, corner Cogswell avenue.

In Harvard street, corner Pine street.

In River street, corner Fairmont street, at Laurel street, at Kinnaird street, at Franklin street, at Pleasant street.

In Spring street, at Fifth street.

In Walnut court, corner Magazine court.

In Winsor street, corner Harvard street, at Lincoln street.

Stony Brook.

The Stony Brook pipe line has, as usual, been examined, and all the gates and blow-offs marked.

Only one leak has been reported this year.

Table Showing the Daily Average Number of Gallons by the Month Flowing over the Waste Way at Stony Brook.

Dec., 1895.	29,887,097 gals.,	31 days.	June, 1896.	2,060,000 gals.,	16 days.
Jan., 1896.	14,183,870 gals.,	31 days.	July, 1896.	No overflow.	
Feb., 1896.	41,582,758 gals.,	29 days.	August, 1896.	No overflow.	
March 1896.	60,593,548 gals.,	31 days.	September, 1896.	No overflow.	
April, 1896.	26,696,666 gals.,	30 days.	October, 1896.	No overflow.	
May, 1896.	3,461,290 gals.,	26 days.	Nov., 1896.	947,333 gals.,	30 days.

Total quantity wasted, 5,704,700,000 gallons.

Daily average for number of days (224) overflow 25,467,410 gallons.

Daily average for year (366 days), 15,586,612 gallons.

Overflow for 1896, Stony Brook.

December, 1895	926,500,000 gals.	31 days.
January, 1896	439,700,000 gals.	31 days.
February	1,205,900,000 gals.	29 days.
March	1,878,400,000 gals.	31 days.
April	800,900,000 gals.	30 days.
May	107,300,000 gals.	26 days.
June	61,800,000 gals.	16 days.
July	——	
August	——	
September	——	
October	——	
November	284,200,000 gals.	30 days.
	5,704,700,000 gals.	224 days.

Recapitulation.

	24 Inch	20 Inch	16 Inch	12 Inch	10 Inch	8 Inch	6 Inch	4 Inch	2 Inch	1½ Inch	Total.
Length in feet of iron pipe, extensions	129	—	—	2512½	115	655	11276	1758	1163	12½	17421
Length in feet of iron pipe, renewals . .	—	2168	2499	9506	—	2581	8904	385	—	—	26243
Number of gates . .	—	2	2	24	2	8	102	16	—	—	156
Number of hydrants	—	—	—	—	—	—	—	—	—	—	51

New Supplies.

	8	6	4	3	2	1½	1¼	1	¾	Total.
Length in feet of pipe	229	203	255	19½	268	197	918	4952	10319½	17361
Number of supplies	1	3	3	1	5	5	19	135	286	458
Number of stop and waste valves . .					4	5	15	134	287	445
Number of screw cocks					3	5	18	134	272	432
Number of sidewalk cocks . .							19	136	283	438
Number of service boxes										432
Number of boxes, frames and covers										15

Comparative Trucking for the Past 7 Years.

	Extensions.	Removals.	Supplies.	Total Feet.	Miles.
1890	11,713 1-2	1,921	15,525	29,167 1-2	5.52
1891	9,858 1-2	2,958	17,864	30,680 1-2	5.81
1892	16,784 1-2	13,628	16,013	46,425 1-2	8.79
1893	18,380 1-2	11,008 1-2	14.233 1-2	43,621 1-2	8.26
1894	13,673	17,481 1-2	17,211	48,365 1-2	9.16
1895	11,083	15,638 1-2	22,266	48,987 1-2	9.27
1896	17,421	26,243	17,361	61,025	11.55

Conclusion.

Following will be found the Engineer's report.

All of which is respectfully submitted.

E. C. BROOKS,
Acting Superintendent.

REPORT OF PUMPING ENGINEER.

Pumping Station, Cambridge Water Works,
November 30, 1896.

To the Honorable Water Board of the City of Cambridge:

Gentlemen:—I would report the machinery at the pumping station in much the same condition as at the date of the last report. The repairs on engine No. 2 have been postponed on account of the delay in the delivery and erection of the new engine; as soon as that is in operation, both No. 1 and No. 2 engines should be thoroughly overhauled.

The foundation for the new engine, the alterations to the roof of the pumping station, the crane girders and the traveling crane, all of which were under contract at the date of the last report, have been completed. The alterations to the boiler house are well along and should be finished next month.

On December 6, the high service engine was started pumping into the southerly part of the new reservoir and the high service was supplied from there until April 2, when the water was drawn off to allow the contractor to resume work. On November 21, pumping into both parts of the new reservoir was begun and continues at the present time, there being about five feet of water in the basin at this time.

Following will be found a statement of expenses at the pumping station, with the usual table.

Respectfully submitted,

E. C. BROOKS,
Engineer.

Statement.

Oil, waste, packing, etc.	$245.96
Repairs on engines and boilers	12.90
Repairs on buildings	337.44
Tools	7.14
Lighting	9.90
Ice	21.90
Expressing	7.70
Telephone	96.85
Coal	6,845.82
Salaries	6,829.50
	$14,415.11

Engine Record, Pond Levels and Rainfall.

Date.	Low Service Engines.						High Service Engines.			Total Water Pumped.	Daily Average Water Pumped.	Total Coal Consumed.	Daily Average Coal Consumed.	Av. Height of Pond.	Rainfall.
	Engine No. 1.			Engine No. 2.											
	Running Time.		Water Pumped.	Running Time.		Water Pumped.	Running Time.		Water Pumped.						
	Hrs.	Min.	Gallons.	Hrs.	Min.	Gallons.	Hrs.	Min.	Gallons.	Gallons.	Gallons.	Lbs,	Lbs.	Feet.	Inches
December, 1895	—	—	—	455	15	175,027,600	697	30	25,230,600	200,258,200	6,459,942	345,000	11,129	13.32	1.90
January, 1896	—	—	—	547	45	213,509,450	743	50	28,269,225	241,778,675	7,799,312	392,000	12,645	13.58	2.46
February, "	—	—	—	478	—	187,575.850	695	50	25,918,650	213,494,500	7,361,879	343,800	11,855	14.37	5.62
March, "	—	—	—	462	15	184,295,100	743	50	27,567,720	211,862,820	6,834,285	348,300	11,235	15.30	4.37
April, "	411	—	166,551,550	—	—	—	612	—	12,112,830	178,664,380	5,955,479	280,600	9,353	16.29	1.70
May, "	448	—	185,605,200	—	—	—	744	—	15,228,180	200,833,380	6,478,496	292,100	9,423	16.32	2.42
June, "	460	15	190,307,150	—	—	—	720	—	14,985,675	205,292,825	6,843,094	284,700	9,490	16.08	2.33
July, "	480	05	192,136,450	—	—	—	744	—	14,856,795	206,993,245	6,677,201	292,800	9,445	15.45	2.65
August, "	471	45	188,331,000	—	—	—	744	—	14,047,452	202,378,452	6,528,337	291,500	9,403	14.88	2.45
September, "	79	—	29,125,250	372	45	146,409.450	720	—	12,758,715	188,293,415	6,276,447	275,500	9,183	14.56	6.29
October, "	367	15	142,780,550	75	45	27,804,700	744	—	14,307,165	184,892.415	5,964,271	277,600	8,955	13.82	3.10
November, "	206	—	72,538,400	235	05	83,359,100	578	05	22,866,750	178,764,250	5,958,808	287,700	9,590	11.68	3.53
Total	2,923	20	1,167,375,550	2,626	50	1,017,981,250	8,487	05	228,149,757	2,413,506,557	—	3,711,600	—	—	38.82
Daily Average	7	59	3,189,550	7	10	2,781,370	23	11	623,360	6,594,280	—	10,141	—	14.64	—

REPORT OF THE TRUSTEES OF THE SINKING FUND OF THE CAMBRIDGE WATER WORKS.

To the Honorable the City Council:—

The undersigned, Trustees of the Sinking Fund of the Water Works, herewith submit their annual report of the fund committed by law to their charge. The report covers the year ending November 30, 1896.

Dr.

Amount of the fund Nov. 30, 1895	$546,049.24	
Received during the year as follows:		
From the Treasurer of the City of Cambridge the annual required appropriation from the water rates .	77,542.50	
Also from the same source the surplus remaining at the close of the year in the maintenance account of the Water Works	3,688.19	
From interest on investments . .	25,463.88	
		$652,743.81

Cr.

Amount paid as premium on investments purchased	$5,396.79	
Amount paid the City Treasurer of Cambridge to meet maturing water bonds	278,000.00	
Balance representing the amount of the fund, Nov. 30, 1896 . . .	369,347.02	
		$652,743.81

Securities Belonging to the Sinking Fund of the Water Works, Nov. 30, 1896.

Cambridge Water Loan, 6 per cent bonds, maturing July 1, 1897 .	$16,000.00	
Cambridge Water Loan, 5 per cent bonds, maturing July 1, 1898 .	12,500.00	
Cambridge Water Loan, 4 per cent bonds, maturing Oct. 1, 1916 . .	65,100.00	
Cambridge Harvard Bridge Loan, 4 per cent bond, maturing Nov. 1, 1920	5,000.00	
Cambridge Contingent Loan, note, dated Dec. 1, 1893, bearing 4 per cent interest	200,000.00	
		$298,600.00
City of Lynn, 4 per cent bond, maturing July 1, 1899	$11,000.00	
City of Boston, 4 per cent bond, maturing April 1, 1900	4,000.00	
City of Providence, 5 per cent bonds, maturing July 1, 1906 . . .	50,000.00	
		65,000.00
		$363,600.00
Cash in bank		5,747.02
		$369,347.02

WM. A. BANCROFT,
JOHN L. ODIORNE,
WM. W. DALLINGER,
Trustees of the Sinking Fund of the Cambridge Water Works.

The bonded water debt which the foregoing fund is to pay, matures as follows, viz:—

July 1, 1897, 6 per cent	$16,000.00
July 1, 1898, 5 per cent	12,500.00
Nov. 1, 1906, 3½ per cent	43,000.00
Oct. 1, 1907, 4 per cent	75,000.00
Oct. 1, 1907, 4 per cent	15,000.00
Nov. 1, 1907, 4 per cent	22,000.00
July 1, 1908, 4 per cent	46,000.00
Aug. 1, 1908, 4 per cent	25,000.00
July 1, 1909, 4 per cent	20,000.00
May 1, 1910, 4 per cent	133,000.00
May 1, 1910, 4 per cent	155,000.00
July 1, 1910, 4 per cent	75,000.00
Sept. 1, 1910, 4 per cent	125,000.00
Jan. 1, 1911, 4 per cent	20,000.00
Oct. 1, 1911, 4 per cent	35,000.00
Jan. 1, 1912, 4 per cent	150,000.00
May 2, 1912, 4 per cent	75,000.00
Nov. 1, 1912, 4 per cent	45,000.00
Feb. 1, 1913, 4 per cent	100,000.00
Aug. 1, 1913, 4 per cent	35,000.00
Aug. 1, 1913, 4 per cent	15,000.00
April 1, 1915, 4 per cent	200,000.00
Aug. 1, 1915, 4 per cent	200,000.00
April 1, 1916, 4 per cent	100,000.00
July 1, 1916, 4 per cent	200,000.00
Aug. 1, 1916, 4 per cent	100,000.00
Oct. 1, 1916, 4 per cent	265,100.00
April 1, 1924, 4 per cent	300,000.00
	$2,602,600.00

REPORT OF THE SCHOOL COMMITTEE FOR 1896.

In compliance with Section 142 of the Regulations for the Public Schools, the Superintendent herewith submits his twenty-second annual report, it being for the year ending December 31, 1896.

Population of Cambridge.

1850	15,215	1875	47,838
1855	20,473	1880	52,699
1860	26,060	1885	59,658
1865	29,112	1890	70,028
1870	39,634	1895	81,643

School Census.

Number of children in the city on the first of May, five years old or more, but less than fifteen, as reported by the Truant Officers.

1879	8,885	1888	11,727
1880	9,390	1889	11,750
1881	9,582	1890	11,971
1882	10,370	1891	12,160
1883	10,490	1892	12,451
1884	10,682	1893	12,644
1885	10,957	1894	12,770
1886	11,131	1895	12,869
1887	11,216	1896	13,716

Schools and Classrooms.

Latin School	1	Classrooms in use	11
English High School	1	" "	13
Grammar Schools	9	" "	103
Primary Schools	20	" "	98
Grammar and Primary Schools	5	" "	54
Kindergartens	9	" "	13
Evening Drawing Schools	2	" "	8
Evening High School	1	" "	6
Evening Elementary Schools	4	" "	15
Whole number of Day Schools			45
Number of classrooms for Day Schools			292

High School and Grammar School Houses.

Schoolhouses.	Number of Classrooms.	Estimated Value.	Size of Lots, Square Feet.	Estimated Value.	Total Value.
Latin	8*	$40,000	37,828	$15,900	$55,900
English High	11†	220,000	74,366	18,000	238,000
Allston	12‡	30,000	15,193	4,600	34,600
Corlett	2	3,000	10,000	1,000	4,000
Harvard	16‡	45,000	20,494	12,000	57,000
Morse	14‡	73,000	25,650	7,000	80,000
Peabody	6	27,000	21,813	7,000	34,000
Putnam	13‡	60,000	11,900	8,300	68,300
Shepard	11	30,000	14,755	7,000	37,000
Thorndike	12	30,000	10,027	4,000	34,000
Washington	12‡	25,000	14,951	7,000	32,000
Webster	16‡	50,000	25,839	9,000	59,000
Wellington	13§	42,000	27,673	8,300	50,300
Total	146	$675,000	310,489	$109,100	$784,100

* Also a library, a physical laboratory, and an assembly hall.

† Also five recitation rooms, a library, a physical laboratory, a chemical laboratory, a lecture room, a drawing room, and an assembly hall.

‡ Also an assembly hall.

§ On the same lot there is another schoolhouse containing four rooms used for primary classes.

Primary School Houses.

Schoolhouses.	Number of Classrooms.	Estimated Value.	Size of Lots, Square Feet.	Estimated Value.	Total Value.
Agassiz	7*	$18,000	19,689	$6,000	$24,000
Boardman	8	12,000	10,018	4,000	16,000
Cushing	2	3,000	14,787	1,000	4,000
Dana	4	2,000	14,317	4,300	6,300
Dunster	4	4,000	10,000	2,000	6,000
Felton	4	6,000	15,090	4,500	10,500
Gannett	5	12,000	15,434	3,000	15,000
Gore	12	25,000	9,900	4,000	29,000
Holmes	4	6,000	11,182	4,500	10,500
Lassell	4	8,000	10,000	2,500	10,500
Lowell	4	7,000	12,033	2,500	9,500
Otis	8	12,000	8,270	4,000	16,000
Parker	6	19,000	12,329	7,000	26,000
Quincy	2	10,000	8,469	5,000	15,000
Reed	4	4,000	12,000	1,200	5,200
Riverside	4	5,000	11,192	3,000	8,000
Sargent	4	3,000	9,995	4,000	7,000
Sleeper	8*	24,800	21,284	4,200	29,000
Stearns	4	3,000	10,050	5,000	8,000
Tarbell	4	8,000	19,500	4,000	12,000
Taylor	8*†	38,000	20,000	7,000	45,000
Willard	12	25,000	20,079	5,000	30,000
Wyman	6	6,000	14,347	3,000	9,000
Primary, Total	128	$260,800	309,965	$90,700	$351,500
Grammar, "	127	415,000	198,295	75,200	490,200
High Schools "	19	260,000	112,194	33,900	293,900
Summary	274	$935,800	620,454	$199,800	$1,135,600

* Used for lower grammar grades and the primary grades.

† Also an assembly hall and two unfinished rooms.

Number of teachers in the Day Schools.

[Special teachers are included in the total.]

December.	Latin School.	English High School.	Grammar Schools.	Primary Schools.	Kindergartens.	Total.	Normal Graduates.
1891	10	16	126	104	11	272	161
1892	10	19	131	106	12	284	166
1893	11	19	138	108	13	297	171
1894	12	21	142	114	15	312	191
1895	14	21	146	116	16	322	198
1896	15	21	151	124	17	337	207

Attendance at all the Day Schools.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per cent of Attendance.
1891	12,468	10,520	9,659	91.8
1892	12,845	10,861	9,959	91.7
1893	13,107	11,045	10,074	91.2
1894	13,254	11,166	10,322	92.4
1895	13,571	11,505	10,611	92.2
1896	13,992	11,957	11,068	92.6

Attendance at the Latin School.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per cent of Attendance.
1891	231	213	204	95.7
1892	238	213	203	95.4
1893	269	251	236	94.1
1894	319	303	286	94.3
1895	380	354	334	94.3
1896	411	373	351	94.2

Attendance at the English High School.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per cent of Attendance.
1891	552	480	464	96.6
1892	624	529	511	96.5
1893	681	569	549	96.5
1894	691	611	594	97.1
1895	743	648	626	96.7
1896	733	632	611	96.6

Attendance at the Grammar Schools.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per cent of Attendance.
1891	5,793	5,052	4,701	93.1
1892	5,891	5,175	4,803	92.8
1893	5,981	5,206	4,838	92.9
1894	5,934	5,200	4,876	93.8
1895	5,926	5,204	4,888	93.9
1896	6,069	5,439	5,105	93.9

Attendance at the Primary Schools.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per cent of Attendance.
1891	5,499	4,481	4,065	90.7
1892	5,697	4,650	4,203	90.4
1893	5,757	4,666	4,215	90.3
1894	5,815	4,741	4,317	91.1
1895	5,928	4,925	4,499	91.3
1896	6,138	5,117	4,680	91.4

Attendance at the Kindergartens.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per cent of Attendance.
1893	419	353	236	66.9
1894	495	311	249	80.3
1895	594	374	264	70.6
1896	641	396	321	81.2

Number of pupils admitted to the lowest grade of the Latin School.

Course, 5 years.

Year.	Boys.	Average Age.	Girls.	Average Age.
1890	39	14 years 6 months	22	14 years 9 months
1891	32	14 years 5 months	35	14 years 3 months
1892	52	14 years 7 months	32	14 years 7 months
1893	63	14 years 6 months	41	14 years 1 month
1894	51	14 years 8 months	44	14 years 4 months
1895	54	14 years 6 months	48	14 years 5 months
1896	47	14 years 4 months	54	14 years 6 months

Number of pupils graduated from the Latin School.

Course, 5 years.

Year.	Boys.	Average Age.	Girls.	Average Age.
1890	10	18 years 8 months	7	19 years 2 months
1891	22	18 years 4 months	14	18 years 4 months
1892	8	17 years 8 months	14	18 years 7 months
1893	16	19 years 3 months	7	19 years 5 months
1894	15	18 years 11 months	12	19 years 6 months
1895	16	18 years 9 months	9	18 years 11 months
1896	16	18 years 0 months	18	18 years 6 months

Number of pupils admitted to the lowest grade of the English High School and the Manual Training School.

[The Manual Training School is connected with the English High School.]

Year.	English High. Course, 4 yrs.	Average Age.	Manual Training. Course, 4 yrs.*	Average Age.
1890	171	15 years 1 month	59	15 years 3 months
1891	196	15 years 1 month	56	15 years 5 months
1892	230	15 years 3 months	85	15 years 3 months
1893	210	15 years 3 months	73	15 years 1 month
1894	239	15 years 1 month	72	15 years 2 months
1895	195	14 years 11 months	63	15 years 2 months
1896	192	14 years 11 months	59	15 years 6 months

Number of pupils graduated from the English High School and the Manual Training School.

[The Manual Training School is connected with the English High School.]

Year.	English High. Course, 4 yrs.	Average Age.	Manual Training. Course, 4 yrs.*	Average Age.
1890	37	18 years 7 months		
1891	35	18 years 4 months	13	17 years 4 months
1892	52	18 years 9 months	25	18 years 1/4 month
1893	63	18 years 10 months	32	18 years 3/4 month
1894	65	18 years 7 months	26	17 years 10 months
1895	54	18 years 6 months	35	17 years 8 months
1896	62	18 years 6 months	10	18 years 6 months

Number of pupils admitted to the lowest class in the Latin School and the English High School since 1887, with the number of graduates.

Admitted to Latin School.	Graduated from Latin School.	Admitted to English High.	Graduated from English High.	Admitted to Manual Training Course.	Graduated from Manual Training Course.
831	245	1,976	511	563	141

* Course changed to 4 years in 1893.

Number of pupils graduated from the Grammar and Primary Schools.

Year.	Grammar Schools. Course, 6 yrs.	Average Age.	Primary Schools. Course, 3 yrs.	Average Age.
1892	536	15 years 1 month	1,146	9 years 10 months
1893	487	14 years 11 months	1,147	9 years 9 months
1894	563	14 years 11 months	1,159	9 years 8 months
1895	491	14 years 9 months	1,209	9 years 10 months
1896	467	14 years 10 months	1,273	9 years 9 months

Length of time in completing the Course of Study in the Grammar Schools.

Year.	In 4 years.	In 5 years.	In 6 years.	In 7 years or more.
1892	10 per cent	27 per cent	45 per cent	18 per cent
1893	9 per cent	29 per cent	47 per cent	15 per cent
1894	10 per cent	32 per cent	42 per cent	16 per cent
1895	9 per cent	30 per cent	46 per cent	15 per cent
1896	8 per cent	33 per cent	49 per cent	10 per cent

Length of time in completing the Course of Study in the Primary Schools.

Year	In 2 years.	In 2½ years.	In 3 years.	In 3½ years.	In 4 years.	In 4½ years or more.
1893	6 per cent	3 per cent	56 per cent	3 per cent	20 per cent	12 per cent
1894	8 per cent	2 per cent	58 per cent	2 per cent	21 per cent	9 per cent
1895	5 per cent	1 per cent	56 per cent	5 per cent	23 per cent	10 per cent
1896	7 per cent	2 per cent	60 per cent	3 per cent	21 per cent	7 per cent

Number of pupils in all the Day Schools at different periods of the year.

Year.	First Day of the First Week.	First Day of the Second Week.	First Week of October.	First Week of the next June.
1891	9,580	10,461	11,180	11,204
1892	10,184	10,974	11,360	11,342
1893	10,692	11,354	11,628	11,532
1894	10,889	11,562	11,847	11,723
1895	11,178	11,894	12,146	12,002
1896	11,580	12,314	12,697	

Number of pupils in the Latin School, December, 1896.

Grade.	Boys.	Girls.	Total.	Per cent.
Fourteenth	25	19	44	.118
Thirteenth	30	30	60	.162
Twelfth	32	48	80	.216
Eleventh	51	29	80	.216
Tenth	53	54	107	.288
Total	191	180	371	

Number of pupils in the English High School and in the Manual Training School, December, 1896.

Grade.	Boys.	Girls.	Total.	Per cent.
Thirteenth	34 (20)*	59	93	.137
Twelfth	57 (30)*	86	143	.211
Eleventh	88 (40)*	92	180	.265
Tenth	131 (69)*	132	263	.387
Total	310 (159)*	369	679	

* Manual Training School.

Number of pupils in the Grammar Schools, December, 1896.

Grade.	Boys.	Girls.	Total.	Per cent.
Ninth	266	248	514	.086
D	26	25	51	.008
Eighth	327	360	687	.115
C	27	29	56	.009
Seventh	440	410	850	.142
Sixth	460	507	967	.161
B	89	90	179	.030
Fifth	593	531	1,124	.187
A	130	131	261	.044
Fourth	648	659	1,307	.218
Total	3,006	2,990	5,996	

Number of pupils in the Primary Schools, December, 1896.

Grade.	Boys.	Girls.	Total.	Per cent.
Third	746	666	1,412	.264
Second	802	795	1,597	.299
First	1,158	1,174	2,332	.437
Total	2,706	2,635	5,341	

Number of pupils and teachers in the Kindergartens, 1894, 1895, 1896.

Year.	Boys.	Girls.	Total.	Number of Teachers.
1894	180	207	387	15
1895	192	225	417	16
1896	231	270	501	17

Number of pupils belonging to the Evening Drawing Schools, with the average attendance.

1891.	1892.	1893.	1894.	1895.	1896.
188	219	242	217	212	193
110	127	142	103	117	103

Number of pupils belonging to the Evening Schools, with the average attendance.

1891.	1892.	1893.	1894.	1895.	1896.
1,020	1,013	1,085	1,379	1,246	1,128
362	329	419	542	478	445

Number of pupils in the Private Schools in Cambridge, including those in the Parochial Schools.

1891.	1892.	1893.	1894.	1895.	1896.
2,127	2,235	2,376	2,492	2,557	2,518

Cost of instruction in the Evening Schools.

Year.	Elementary.	High.	Drawing.	Total.
1891	1,851 50	1,191 25	867 00	$3,909 75
1892	1,827 50	1,226 25	1,157 00	4,210 75
1893	2,124 50	1,363 00	1,531 00	5,018 50
1894	2,293 00	1,396 00	1,175 00	4,864 00
1895	2,427 00	1,422 50	1,255 00	5,104 50
1896	2,104 00	1,321 50	1,110 00	4,535 50

Cost of instruction in the Day Schools.

[Salaries of teachers, superintendent, agent, and truant officers.]

Year.	Number of Teachers December 1.	Average Number of Pupils.	Whole Cost.	Cost per Pupil.
1876	176	7,066	$164,818 00	$23 32
1878	173	7,028	136,491 20	19 42
1880	182	7,175	130,371 75	18 17
1882	200	7,898	137,328 55	17 38
1884	216	8,414	152,290 62	18 09
1886	233	9,218	165,277 42	17 92
1888	241	9,756	175,773 80	18 02
1889	251	9,962	180,816 26	18 15
1890	263	10,089	190,558 21	18 89
1891	272	10,520	196,938 70	18 72
1892	284	10,861	207,144 22	19 07
1893	297	11,045	215,593 12	19 52
1894	312	11,166	228,873 48	20 50
1895	322	11,505	235,811 62	20 50
1896	337	11,957	245,104 01	20 50

Cost of the Day Schools.

[The expenditures for new schoolhouses are not included.]

Year.	Number of Teachers December 1.	Average Number of Pupils.	Whole Cost.	Cost per Pupil.
1876	176	7,066	$200,894 09	$28 43
1878	173	7,028	162,437 77	23 11
1880	182	7,175	153,967 56	21 45
1882	200	7,898	166,230 52	21 04
1884	216	8,414	203,234 56	24 15
1886	233	9,218	207,536 46	22 51
1888	241	9,756	225,408 57	23 10
1889	251	9,962	229,421 31	23 03
1890	263	10,089	241,980 84	23 98
1891	272	10,520	249,491 67	23 71
1892	284	10,861	266,651 02	24 55
1893	297	11,045	274,053 82	24 81
1894	312	11,166	287,137 37	25 72
1895	322	11,505	299,085 93	26 00
1896	337	11,957	316,090 83	26 44

Summary of the School Census as taken by the Truant Officers, May, 1896.

[The statutes make it the duty of the School Committee to ascertain annually the names and ages of all persons between the ages of five and fifteen years, belonging in their respective towns and cities on the first day of May.]

Number of children in the city five years old or more, but less than fifteen	13,716
Number in public schools five years old or more, but less than fifteen	10,785
Number in public schools fifteen years old or more, as shown by the school register	1,347
Number in private schools five years old or more, but less than fifteen	1,952
Number not attending school five years old or more, but less than eight	713
Number not attending school eight years old or more, but less than fourteen	112
Number not attending school fourteen years old or more, but less than fifteen	154
Whole number not attending school five years old or more, but less than fifteen	979
Number in the city five years old or more, but less than six	1,341
Number in the city eight years old or more, but less than fourteen	8,179

Finances.

[For the financial year ending December 1, 1896.]

Cost of instruction in day schools	$245,104 01
Cost of instruction in evening schools	4,535 50
Cost of care and repairs of schoolhouses, day schools	48,144 83
Cost of care and repairs of schoolhouses, evening schools	2,400 00
Cost of text-books and supplies	18,437 22
Expended for incidental expenses	870 95
Expended for transportation of pupils	532 50
Expended for care of truants	2,262 62
Expended for flags	738 70
Expended for plans for new Latin schoolhouse	1,375 00
Expended for Russell schoolhouse	24,225 78
Expended for land to enlarge the Putnam school yard	6,000 00
Expended for finishing and furnishing Taylor schoolhouse	17,283 32
Expended for improvements in sanitary arrangements	7,992 79
Total expenditures for all school purposes	$379,903 22
Deducting from the above the amount received from the Hopkins Fund, $705.66, and for the tuition of non-resident pupils, $1,108.50, the actual cost of the schools to the city is	$378,089 06
Assessed value of real and personal estates, May, 1896	$83,750,095 00
Ratio of expenditures for school purposes to the valuation in 1896	.0045

Statistics taken from the sixtieth annual report of the Secretary of the State Board of Education.

Number of cities and towns: cities, 32; towns, 321; . . .	353
Number of public schools	9,153
Number of pupils of all ages in the public schools during the year	424,353
Number of persons over fifteen years of age attending the public schools	41,656
Per cent of attendance based upon the average membership	92
Number of persons employed as teachers in the public schools during the year: men, 1,078; women, 11,197;	12,275
Number of teachers who have graduated from normal schools	3,903
Average number of months the public schools have been kept for the entire year	9.6
Number of high schools	257
Number of teachers in high schools	1,186
Number of pupils in high schools	34,323
Amount expended upon the public schools, exclusive of the expense of school buildings	8,639,532 20
Cost of new schoolhouses, permanent improvements, and ordinary repairs	3,189,658 41
Entire expenditure for public school purposes	$11,829,190 61

Special Institutions.

The following are the statistics of the attendance and expenses of the Massachusetts pupils in the several schools for the deaf, the blind, and the feeble-minded.

AMERICAN SCHOOL, HARTFORD, CONN.

Number of Massachusetts beneficiaries, 1895–96	77
Paid for these pupils	$13,744 05

CLARK SCHOOL, NORTHAMPTON.

Number of Massachusetts beneficiaries, 1895–96	118
Paid for these pupils	$23,137 50

HORACE MANN SCHOOL, BOSTON.

Number of Massachusetts beneficiaries, 1895–96	119
Paid for these pupils	$14,055 14

PERKINS INSTITUTION FOR THE BLIND.

Number of Massachusetts beneficiaries, 1895–1896	137
Annual appropriation from the State	$30,000 00

SCHOOL FOR THE FEEBLE-MINDED, WALTHAM.

Number of Massachusetts beneficiaries, 1895–1896	181
Annual appropriation from the State	$25,000 00

TABULAR VIEW.

December 1, 1896.

Prepared by the Secretary of the School Committee.

Names of Schools.	Teachers.	Salaries.	No. of Pupils Dec. 1, 1896.
Latin	William F. Bradbury	$3,000	371
	Theodore P. Adams	2,000	
	Herbert J. Chase	1,500	
	Margarette M. Leighton	1,050	
	Helen M. Albee	950	
	Constance Alexander	750	
	Mary A. Bachelder	700	
	Alice Cary Baldwin	750	
	Helene H. Boll	800	
	Caroline Drew	950	
	Edith A. Hall	700	
	Mary C. Hardy	950	
	Rose Hardwick	750	
	Jennie S. Spring	950	
	Anna M. Warren	850	
	Annie S. Dodge*	400	
English High	Ray Greene Huling	3,000	679
	Edwin L. Sargent	2,000	
	Charles F. Warner	2,000	
	Joseph A. Coolidge	1,400	
	Grace L. Deering	1,050	
	Clara A. Armes	950	
	Mabel L. Chamberlain	800	
	Caroline Close	950	
	Bertha L. Cogswell	850	
	Gertrude H. Crook	700	
	Myra I. Ellis	1,000	
	Maud A. Lawson	950	
	Henrietta E. McIntire	850	
	Mary Moulton	950	
	Louisa P. Parker	1,000	
	Lillian C. Rogers	900	
	Caroline A. Sawyer	950	
	Emma A. Scudder	950	
	Martha R. Smith	950	
	Maria E. Spare	950	
	Delia M. Stickney	1,050	
	Martha L. Babbitt*	500	
Agassiz Grammar Primary	Maria L. Baldwin	800	144 209
	Sarah E. Barrett	620	
	Mary G. Carpenter	620	
	Addie B. Byam	400	
	Mary P. Massé	620	
	Mary A. Parsons	620	
	Grace C. Stedman	400	
	Jennie L. Upham	570	

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* Secretary and Librarian.

Tabular View — Continued.

Names of Schools.	Teachers.	Salaries.	No. of Pupils Dec. 1, 1896.
Allston	Benjamin W. Roberts	$2,000	585
	Sara A. Bailey	700	
	Emily R. Pitkin	650	
	Susan M. Adams	620	
	Mary Blair	620	
	Mary M. Brigham	620	
	Evelyn M. Dormer	400	
	S. Alice Fell	620	
	Susan L. Keniston	620	
	Evelyn B. Kenny	620	
	Ada M. Litchfield	620	
	Nina M. Marsh	620	
	S. Agnes Mulloney	620	
	Ida G. Smith	620	
	Caroline M. Williams	620	
Corlett	Fannie P. Browning	630	78
	Alice V. Currier	520	
Harvard	James S. Barrell	2,000	810
	Arthur A. Lincoln	1,200	
	Ada H. Wellington	700	
	Margaret B. Wellington	700	
	Anna M. Brown	650	
	Addie L. Bartlett	620	
	Marcia R. Bowman	520	
	Elizabeth L. Buckley	620	
	Mary F. Emerson	620	
	Frances Fabyan	620	
	Alice V. Flather	620	
	Estella J. French	620	
	Eliza S. Getchell	620	
	Adeline M. Murphy	620	
	Elizabeth M. Nash	570	
	Louise C. Patterson	620	
	Annie M. Street	620	
	Emma F. West	620	
	Hortense O. Young	620	
Morse Grammar Primary	Mary A. Townsend	2,000	408 202
	Mary E. Towle	700	
	Marcia E. Ridlon	650	
	Elizabeth J. Baldwin	620	
	Stella L. Cotton	620	
	Marie B. Daniel	620	
	Annie M. Dow	620	
	Leila F. Drake	620	
	Ida J. Holmes	620	
	Mary E. Leavitt	620	
	Grace H. Manter	400	
	Alice E. May	620	
	Emilie F. Richardson	620	
	Mary E. Sawyer	620	
	Lucy M. Soulée	620	
	Gertrude D. Sprague	620	

Tabular View — Continued.

Names of Schools.	Teachers.	Salaries.	No. of Pupils Dec. 1, 1896.
Peabody	Frederick S. Cutter	$2,000	338
	Addie F. Cleary	700	
	Susan Allison	620	
	Anna F. Bellows	620	
	Charlotte A. Ewell	620	
	Florence E. Frost	620	
	Anna M. Poole	570	
	Alice M. Tufts	400	
Putnam	Thomas W. Davis	2,000	560
	Frederick B. Thompson	1,200	
	Eliza M. Hussey	700	
	Henriette E. deRochemont	650	
	Annetta Bruce	620	
	Anna E. Callahan	620	
	Mary A. Carmichael	620	
	Anna L. P. Collins	620	
	Sarah M. Grieves	620	
	Hattie L. Jewell	570	
	Annie B. Josselyn	620	
	Louise A. Keeler	620	
	Eliza S. Paddack	620	
	Louise A. Stickney	620	
	Annie A. Trelegan	620	
Shepard	Edward O. Grover	2,000	501
	Nellie A. Hutchins	700	
	Caroline L. Blake	700	
	Ella M. Horne	650	
	Emma A. Faulkner	620	
	Harriet Foster	620	
	Lottie L. Griswold	620	
	Louise H. Griswold	620	
	Ellen J. Hunt	620	
	Flora C. Ingraham	620	
	Mary Agnes Stanton	620	
	Grace D. Street	520	
	Carrie M. Wilson	520	
Sleeper { Grammar Primary	A. Estelle Ingraham	800	227 147
	Emily Bissell	470	
	Mabel E. Blake	620	
	Mary F. Calnane	520	
	Fannie G. Flanders	570	
	Harriet M. Hanson	570	
	Melissa M. Lloyd	620	
	Evelyn J. Locke	620	
	Blanche C. Trefethen	470	
Taylor { Grammar Primary	Ella R. Avery	800	150 219
	Bridget T. Boyle	570	
	Lillian M. Canty	620	
	Elizabeth R. Hanlon	520	
	Kate A. Hegarty	520	
	Cecilia F. Leahy	400	

Tabular View — Continued.

Names of Schools.	Teachers.	Salaries.	No. of Pupils Dec. 1, 1896.
Taylor	H. Maud McLean	$470	
	Mabel S. Murray	620	
	Mabel F. Reycroft	470	
Thorndike	Ruel H. Fletcher	2,000	496
	Harriet A. Townsend	700	
	Laura A. Westcott	650	
	Grace W. Fletcher	620	
	Lena L. Frederikson	400	
	Emma A. Hopkins	620	
	Elizabeth G. Hutchison	620	
	Mary E. Ingraham	520	
	Grace L. Morton	520	
	Mary E. Nason	620	
	S. Louise Regal	620	
	Abby S. Taylor	620	
	Lydia A. Whitcher	620	
Washington	John W. Freese	$2000	492
	Leila H. Sprague	600	
	Mary E. Stiles	700	
	Alice P. Fay	650	
	Georgianna A. Chesley	470	
	Eldora J. Clark	620	
	Mary L. Ells	620	
	Thalia Goddard	620	
	Edna W. Hodgkins	470	
	Ellen A. Kidder	620	
	Winifred L. Kinsley	620	
	Emma Penney	570	
	Margaret J. Penney	620	
	Hattie Shepherd	620	
Webster	John D. Billings	2,000	719
	Herbert S. Gay	1,200	
	Alice C. Phinney	700	
	Martha N. Hanson	700	
	Ada A. Billings	650	
	Mabel T. Ashley	620	
	Ella E. Buttrick	620	
	Charlotte M. Chase	620	
	Susan I. Downs	620	
	Josephine Hills	620	
	Edith M. Keith	620	
	Katherine E. Lahey	620	
	M. Josephine Lamprey	620	
	Anna S. Lamson	620	
	Minnie V. Reid	620	
	Harriette E. Shepard	620	
	Ellen F. Watson	620	
Boardman	Florence H. Barrett	690	351
	Christine R. Denyven	620	
	Isabella M. Duguid	570	
	Myra Hatt	470	
	Ann W. Ingalls	400	
	Elizabeth J. Karcher	620	

Tabular View — Continued.

Names of Schools.	Teachers.	Salaries.	No. of Pupils Dec. 1, 1896.
Boardman	Grace Morgan	$520	
	C. Florence Smith	620	
	Sarah E. Stewart	620	
Cushing	Isadore I. Foster	630	83
	Eva J. Irish	400	
Dana	Georgia E. Martin	640	155
	Jane Macmaster	520	
	Matilda Macmaster	570	
	Marion B. Magwire	570	
Dunster	Susan E. Wyeth	645	180
	Mary E. Colby	620	
	Mary A. Doran	570	
	Agnes M. Sheridan	520	
Felton	Florence A. Rogers	640	189
	S. Emma Davis	620	
	Helen E. Hazard	570	
	Carrie H. Smith	620	
Gannett	Mary A. Rady	645	199
	Annie M. Billings	620	
	Anna M. Jones	620	
	Augusta G. Mirick	620	
Gore	Frances E. Pendexter	680	456
	Maude A. Deehan	650	
	Addie H. Dale	620	
	Minnie A. Doran	470	
	Cora E. Laskey	400	
	Katherine L. McElroy	620	
	Julia G. McHugh	520	
	Mary E. Mulloney	620	
	Maude L. Parker	400	
	Anastasia Peters	620	
	Jane E. Whoriskey	620	
Holmes	Marianne M. Webb	630	61
	Carrie J. Allison	400	
Lassell	Frances E. Whoriskey	640	152
	Rose V. Collier	620	
	Elizabeth B. Gahm	620	
	Mary E. Whoriskey	470	
Lowell	Eusebia A. Minard	640	127
	Malvina M. Joslin	620	
	Agnes J. McElroy	620	
Otis	Ellen N. Leighton	685	318
	Frances Allen	620	
	Josephine M. Doherty	620	
	Luella M. Marsh	620	
	Emma J. Ross	620	
	Margaret Sullivan	570	
	Ellen C. Walsh	620	
	Kate F. Wellington	620	
Parker	Emily C. Dallinger	650	244
	Charlotte E. Clapp	570	
	Margaret E. Fitzgerald	520	
	Agnes Marchant	520	

Tabular View — Continued.

Names of Schools.	Teachers.	Salaries.	No. of Pupils Dec. 1, 1896.
Parker	Hattie A. Thayer	$520	
Quincy	Charlotte E. Jewell	630	83
	Lucy C. Wyeth	620	
Reed	Margaret Kidd	640	172
	Margaret T. Burke	620	
	Jennie R. Marsh	520	
	Julia A. Robinson	620	
Riverside	Elizabeth A. Tower	640	136
	Amanda M. Alger	620	
	Mary A. Burke	620	
Sargent	Mary A. Brown	640	223
	Christina D. Barbey	620	
	Alice J. Hubbard	520	
	Ella M. Leaver	620	
Stearns	Fannie E. Higgins	640	202
	Maria J. Bacon	620	
	Ellen A. Cheney	620	
	Eva A. Taylor	620	
Tarbell	Emma J. Young	640	184
	Florence J. Alley	620	
	Sadie E. Meacham	570	
	Carrie P. Pierce	620	
Willard	Amelia Wright	705	476
	Sally N. Chamberlain	620	
	Grace L. Cowan	570	
	M. Elizabeth Evans	620	
	Ella F. Gulliver	620	
	Julia S. Gushee	620	
	Mary E. G. Harrington	620	
	Louise W. Harris	620	
	Katherine M. Lowell	620	
	Eliza D. Watson	620	
	Grace R. Woodward	620	
	Laura Wright	620	
Wyman	Fannie E. M. Dennis	650	288
	Addie M. Bettinson	620	
	Mary H. Brooks	400	
	M. Carrie Dickman	620	
	Georgianna P. Dutcher	620	
	Genevieve S. Flint	620	
	Mary M. Gilman	620	
Wellington Grammar Primary	Herbert H. Bates	2,500	488 285
	Susan G. Lombard	800	
	Sarah J. Gunnison	800	
	Mary I. Vinton	800	
	Carrie H. Stevens	700	
	Emma M. Taylor	620	
	Loretta L. Shaw	400	
	Training Class	4,400	

Tabular View — Concluded.

Names of Schools.		Teachers.	Salaries.	No. of Pupils Dec. 1, 1896.
Kindergartens	Boardman	Mabel S. Eddy	$620	51
		Caroline F. Carrick	400	
	Dunster	Clara A. Hall	620	47
		Caroline A. Wolcott	400	
	Gannett	Gertrude M. Gove	620	56
		Margaret Sherlock	480	
	Gore	Selma E. Berthold	620	68
		Sarah S. Wells	520	
	Lowell	Melinda Gates	620	47
	Moore Street	Harriette E. Ryan	620	60
		Mary B. Pratt	440	
	Riverside	Helen I. Hutchison	620	58
		Nellie A. Watson	520	
	Sleeper	Mabel F. Adams	520	58
		Margaret I. Stebbins	400	
	Taylor	Mary F. Leland.	570	56
		Caroline A. Leighton	400	

TEACHER OF BOTANY — Sarah E. Brassil	$550
TEACHER OF GYMNASTICS — Catherine F. Pedrick	600
TEACHERS OF SEWING — Agnes Gordon	600
Alice H. Nay	600
Nancy T. Dawe	360
DIRECTOR OF MUSIC — Frederick E. Chapman	2,000
DIRECTOR OF DRAWING — Peter Roos	1,700
ASSISTANT IN DRAWING — Lucia N. Jennison	800
SPECIAL PRIMARY TEACHER — Mary A. Lewis	1,000
SUPERINTENDENT — Francis Cogswell	3,000
AGENT — Sanford B. Hubbard	2,000
CLERK — Althea B. Frost	600
PORTER — John H. Lemon	500
TRUANT OFFICERS — Lucian S. Cabot	700
John Carmichael	900
Francis M. Mason	900
William H. Porter	900

The Post Office addresses of the several schools are as follows:

CAMBRIDGE — English High, *Corlett, *Peabody, *Washington, †Agassiz, Cushing, Dunster, Holmes, Lowell, Quincy, Riverside, †Russell.

CAMBRIDGEPORT — Latin, *Allston, *Harvard, †Morse, *Webster, †Wellington, Boardman, Dana, Felton, Gannett, Parker, Sargent, Stearns, Tarbell, Willard.

EAST CAMBRIDGE — *Putnam, *Thorndike, Gore, Lassell, Otis, †Taylor.

NORTH CAMBRIDGE — *Shepard, Reed, †Sleeper, Wyman.

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*Grammar grades.

†Grammar and primary grades.

Summary.

Number of pupils in Latin School	371
Number of pupils in English High School	679
Number of pupils in Grammar Schools	5,996
Number of pupils in Primary Schools	5,341
Number of pupils in Kindergartens	501
Total	12,888
Number of pupils belonging to the Public Schools, Dec. 1, 1895	12,174
Increase of pupils, 1896	714
Increase of pupils, 1895	250
Increase of pupils, 1894	278
Increase of pupils, 1893	135
Increase of pupils, 1892	210
Increase of pupils, 1891	222
Average annual increase of pupils, from 1880 to 1890 (inclusive)	331

Cost of Instruction.

Latin School	$16,525 00	For each pupil	$44 54
English High School	24,612 00	" " "	36 25
Training School	12,204 10	" " "	15 79
Grammar Schools	97,385 20	" " "	16 24
Primary Schools	67,539 30	" " "	12 65
Kindergartens	9,185 58	" " "	18 33
Teachers of Sewing	1,444 00		
Director of Music	2,000 00		
Directors of Drawing	2,330 00		
Teacher of Botany	550 00		
Teacher of Gymnastics	470 00		
Substitute Teachers	560 00		
Superintendent	3,000 00		
Agent	1,860 00		
Clerk	600 00		
Special Teacher in Primary Schools	1,000 00		
Truant Officers	3,680 83		
Porter	158 00		
	$245,104 01	For each pupil	19 02

Cost of instruction in Evening High School	$1,321 50
Cost of instruction in Evening Elementary Schools	2,104 00
Cost of instruction in Evening Drawing Schools	*1,110 00
	$4,535 50

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* The director of drawing is principal of these schools. No part of his salary is included in this amount.

Remarks on the Statistics.

The increase over the last school year in the number of pupils registered is 421; in the average number belonging, 452; in the average daily attendance, 457. In the per cent of attendance there has been an increase of .4 per cent. The number belonging to the schools in December, 1895, was 12,174; in December, 1896, 12,888; an increase of 714. The entire cost of the day schools, excluding the expenditures for new schoolhouses and new furniture, exceeds that of last year by $17,004.90, and the cost per pupil by 44 cents. In the entire cost of instruction the increase is $9,292.39, the cost per pupil being the same as in 1895 and 1894.

While Cambridge expends a large amount for her schools, there are *two hundred and forty-nine* towns and cities in the State which make a larger expenditure in proportion to their wealth. In a list of the thirty-two cities, arranged numerically according to the percentage of their taxable property appropriated to the support of public schools for the year 1895–1896, Cambridge is the *twentieth;* and compared with the fifty-four towns and cities of our county, Cambridge is the *fortieth.* In a list of the towns and cities of the State, arranged numerically according to the sum appropriated for each child between five and fifteen years of age, Cambridge is the *forty-fourth.*

These statistics relating to the schools of the State are taken from the sixtieth annual report of the secretary of the Board of Education.

Text-Books and Supplies.

At the meeting of the Board in December, the committee on supplies submitted a detailed report of the expenditures of that committee for the year.

This report was accepted, and it was voted that it be incorporated in the annual report of the school committee. The report is as follows:—

In accordance with Section 29 of the Rules of the School Board, the Committee on Supplies submit their report for the school year ending July 1, 1896, it being their twelfth annual report.

Stock on hand July 1, 1895	$2,794 85	
Purchases and expenditures from the appropriation	18,418 05	
Purchases and expenditures by exchanges	1,124 27	
		$22,337 17
Delivered to schools, officers, etc.	$18,778 95	
Sold and exchanged from stock	218 52	
Stock on hand July 1, 1896	3,339 70	
		$22,337 17
The purchases and expenditures have been:—		
For text-books	$10,478 74	
Desk and reference books	337 27	
Copy and drawing books	1,307 56	
Apparatus and furnishings	1,036 45	
Printing, $307.20; expressage and labor, $347.40;	654 60	
Repairing books, $230.70; diplomas, $153.52;	384 22	
Miscellaneous supplies, etc.	5,343 48	
		$19,542 32
Less the value of exchanges		1,124 27
		$18,418 05
The net cost of text-books and supplies is as follows:—		
Stock on hand July 1, 1895	$2,794 85	
Bills paid by the City Treasurer	18,418 05	
		$21,212 90
Less stock on hand July 1, 1896	$3,339 70	
Cash paid to City Treasurer, sales and damages	396 40	
		$3.736 10
		$17,476 80
We have, net cost of all schools and officers		$17,476 80

or an average cost per pupil of $1.436 against $1.152, for the year 1895; $1.243, for the year 1894; $1.109, for the year 1893; $1.149, for the year 1892; $1.248, for the year 1891; $1.334, for the year 1890; $.960, for the year 1889; $1.068, for the year 1888; $1.051, for the year 1887; $1.17, for the year 1886; and $1.88, for the year 1885. The average cost per pupil per annum for twelve years has been $1.233.

The cost of each grade of schools for text-books and supplies is as follows : —

	Net Expense.	Average per Pupil.				
		1896.	1895.	1894.	1893.	1892.
High Schools................	$3,614 16	$3.403	$2.925	$3.794	$3.969	$3.826
Grammar Schools...........	6,785 46	1.527	1.418	1.301	1.106	.969
Mixed Schools..............	3,945 38	1.995	1.083	1.264	1.005	2.398
Primary Schools............	1,897 64	.444	.325	.369	.226	.140
Kindergartens.............	242 06	.580	.251	.588	.497	.316
Evening Schools............	212 60	......	......	......	......	......
Special Teachers............	81 65	......	......	......	......	......
Miscellaneous expenses (not chargeable to any grade)..	725 43	......	......	......	......	......
	$17,504 38					
Less profits on sales........	27 58	......	......	......	......	......
	$17,476 80	$1.436	$1.152	$1.243	$1.109	$1.149

The expenditures for the school year 1895-96 have exceeded those of the preceding year by $3,737.44, or $0.284 per pupil. The increase in detail is as follows : — Text-books, $2,404.30 ; desk and reference books, $210.64 ; copy and drawing books, $200.36 ; apparatus and furnishings, $326.63 ; miscellaneous supplies, $595.51.

The principal cause of the increase was the introduction of Frye's complete geography. The opening of the Sleeper and Taylor schools, which had to be completely supplied with desk and reference books, and apparatus and furnishings, was the main cause for the increase in those items; the increased number of pupils in the Latin school also required additional apparatus for physics. As noted in the last report, the use of copy books in all grades and the substitution of paper, pens, and pencils for slates and slate pencils, have caused a large increase in the cost of these supplies, the latter change having involved an increase of about $0.047 per pupil. The establishment of the Taylor kindergarten and the removal and enlargement of that at the Sleeper have made the expenditures for kindergartens much larger than last year.

The work of the supply department has grown so much that the committee was authorized by the Board to employ a man to serve as porter, and since September they have had such a person at work under the direction of the agent, enabling him to devote more time to the inspection and purchase of text-books and supplies.

During the financial year 1896–97 the Russell school on Larch street must be equipped with text-books, desk, reference, and library books and furnishings, and the outfit of the Taylor school completed; some apparatus which has long been desired for the Latin school is now imperatively demanded; a small amount of physical apparatus is required for each grammar school.

By the provisions of chapter 181 of the acts of 1895 the school committee was required to provide schoolhouses, not so furnished, with flags and flagstaffs. The flags have been provided by this committee, and the staffs have been contracted for and some of them furnished under the direction of the superintendent of public buildings. Provision must be made annually for the repair and renewal of the flags and flagstaffs.

School Accommodations.

The Taylor school was opened in March, and the eight rooms were at once occupied. Additional room is already needed, and the two unfinished rooms should be ready for use at the beginning of the school year in September.

The schoolhouse on Larch street is nearly completed. It is a fine, brick building, and will be used both for grammar and primary grades. The school has been named the "Russell School," in honor of the late Charles Theodore Russell.

A year ago plans were adopted for a new Latin schoolhouse, and it was expected that by the first of May a beginning on the work would be made. The expectation was not realized. All the arrangements are now completed, and it is understood that the building will be erected without further delay.

Important sanitary improvements have been made in the Thorndike, Willard, Stearns, and Sargent schoolhouses.

Two of the schoolhouses have been damaged by fire — the old Gannett on the seventeenth of January, and the Allston on the twentieth of February. The loss in each case was from seven to eight hundred dollars.

On the first of December, 1896, there were seven hundred fourteen more pupils in the schools than on the first of December, 1895.

This is the largest increase in one year in the history of the schools. In 1885 the increase was five hundred eighty-nine, and the average annual increase since that time, not including that for 1896, has been two hundred fifty-two.

To provide for the regular increase a new schoolhouse containing from four to eight rooms is required each year. It was hoped that the time had come for remodelling the Felton schoolhouse, or for building a new one to take the place of the Dana or Stearns, but the large increase the last year precludes all thought of these improvements, and the pressing question now is in regard to additional accommodations. Rooms are needed in Wards Two, Three, Four, and Five. One schoolhouse, therefore, will not meet the demands. If the city can build but one, it should be built in Ward Five.

The proposal made in the city council to pave the sidewalks in front of all the buildings used for school purposes met the hearty approval of the committee on schoolhouses, and it is hoped that the suggestion of that committee will be carried out, namely, "that it would be well to provide a permanent sidewalk at every schoolhouse as soon as the building is ready for use, and to reckon the expense as a part of the cost of the building."

At the request of the committee on hygiene and physical culture, the superintendent of public buildings changed the furniture in several schoolrooms, that the pupils might be more comfortably seated. In two rooms the old furniture was removed, and new furniture with adjustable irons was put in its place, and in the other rooms the irons only were changed, adjustable irons being substituted for those in use.

This action of the committee and the superintendent of buildings is one of great importance. It has to do with the health and comfort of the pupils.

LONG AND FAITHFUL SERVICE.

During the year two men have died whose services in connection with the schools extended over a period of forty years.

Dr. William W. Wellington was elected a member of the school committee in 1846, and served continuously until the year 1866, with the exception of the years 1854 and 1858. During nine years of this time he was the secretary of the Board, and he continued to hold that office for twenty-two years after he ceased to be a member of the committee.

Mr. Nathan Lincoln was appointed teacher of music in 1850, and his services ended December 31, 1890.

Dr. Wellington was a member of the committee for a longer time than any other person, and it is said that Mr. Lincoln's term of service exceeded that of any other singing-master in the public schools of any one city or town in the country. The length of their services, however, is not more remarkable than the importance of the service they rendered. Their names are inseparably connected with the history of the schools, and they will always be held in grateful remembrance. It was the privilege of the superintendent to come into close relations to them both, and their death is to him a personal loss.

Miss Lucy A. Downing taught in the Washington grammar school thirty-eight years.

Miss Abby M. Webb taught in the Washington grammar school thirty-one years, having previously taught in other Cambridge schools five years.

Miss Emily F. Fessenden taught in the Shepard grammar school twenty-one years.

These three teachers were unlike in many respects, but this can be said with equal emphasis of each of them: She was an earnest, faithful, conscientious teacher.

In Memoriam.

William W. Wellington,
October 27, 1896.

Nathan Lincoln,
September 24, 1896.

Lucy A. Downing,
March 19, 1896.

Abby M. Webb,
October 27, 1896.

Emily F. Fessenden,
August 9, 1896.

SCHOOL REPORTS.

For more than fifteen years the statistical part of the report of the superintendent has remained in its subject matter and arrangement essentially unchanged; and it is nearly fifty years since the "Tabular View" was first printed. Statistics for a single year are only separate facts; those collected for a series of years, under the same conditions, become by comparison the source of much information.

Experience has shown it to be also desirable that certain information relating to the organization and conduct of the schools should be printed from year to year. The most serviceable report the superintendent ever prepared was for the year 1894. This contained the information usually desired by persons interested in schools either as parents or school officials, and it was very generally used in answering letters of inquiry in regard to school matters.

It is proposed, therefore, that the report for 1896 contain the usual statistics, with similar information to that given in the report for 1894 and such other information and papers as pertain to the history of the schools.

Latin School. March 1, 1886, the Classical and English departments of the Cambridge high school were made two separate schools, called respectively "The Cambridge Latin School" and "The Cambridge English High School." At the time of the separation the Cambridge high school contained five hundred fifteen pupils, and the number of teachers was sixteen. One hundred sixty-five of the pupils, and six of the teachers went to the Latin school.

The following table shows the growth of the Latin school and the cost of instruction from year to year, beginning with the year 1887, the first full year of its organization: —

December 1.	Number of Pupils.	Number of Teachers.	Cost of Instruction.	Cost per Pupil.	Number of Graduates.
1887	238	9	$11,615 00	$48 80	12
1888	231	10	12,211 00	52 86	22
1889	219	10	12,555 00	57 78	27
1890	227	10	12,607 41	55 54	17
1891	230	10	12,967 50	56 38	36
1892	262	10	12,751 07	48 66	22
1893	311	11	13,425 66	43 17	23
1894	368	12	14,359 66	39 02	27
1895	388	14	15,059 58	38 81	25
1896	371	15	16,525 00	44 54	34

The cost of the Latin school to the city is less than the above sum by the amount received from the Hopkins fund, which can be used only for classical instruction. Were this amount deducted, the annual cost per pupil would be from two to three dollars less than given above, according to the number of pupils in the school.

The course of study is arranged for five years, and is almost wholly decided by the requirements for admission to Harvard College. Although the course is arranged for five years, sixteen per cent of all the graduates have completed the work in four years. The following is the rule in regard to the admission of pupils to the Latin school, and also to the English high school: "Pupils who have received the diploma of their respective grammar schools certifying that they have completed the prescribed course of study, may be admitted to either high school without an examination. For other persons who desire admission, an examination shall be held at the beginning of the autumn term under the direction of the committee on high schools, but pupils may be admitted to advanced standing at any time. No pupil from any class in a grammar school shall be examined who does not present a certificate that he has pursued his studies during vacation."

For non-resident pupils the tuition is fifty dollars a year, payable in advance, one-half at the beginning and the other half at the middle of the school year. The sessions of the school begin at 8.30 A. M., and close at 1.30 P. M.

The school has outgrown its present building and three classes occupy rooms in the schoolhouse on Lee street. Plans have already been prepared for a new schoolhouse to be erected near the English high school building and the public library.

English High School. The English high school was organized March 1, 1886.

The following table shows the growth of the English high school and the cost of instruction from year to year, beginning with the year 1887, the first full year of its organization : —

December 1.	Number of Pupils.	Number of Teachers.	Cost of Instruction.	Cost per Pupil.	Number of Graduates.
1887	320	12	$13,950 00	$43 59	49
1888	363	12	14,045 00	38 69	42
1889	455	14	16,157 96	35 51	52
1890	518	15	17,962 50	34 68	37
1891	575	16	18,767 50	32 64	48
1892	613	19	20,488 50	33 42	77
1893	656	19	22,095 00	33 68	95
1894	709	21	23,051 00	32 51	91
1895	674	21	24,369 40	36 16	89
1896	679	21	24,612 00	36 25	72

The course of study is arranged for four years. In 1888 manual training was included in the course, the instruction being given at the Cambridge manual training school. Provision is also made for a commercial course of two years. Pupils who have finished this course, and who desire to continue their studies two years longer, may do so and receive a diploma.

The requirements for admission to this school are the same as for admission to the Latin school.

For non-resident pupils who do not take the manual training course, the tuition is fifty dollars a year. For those who take that course, it is one hundred fifty dollars. In both cases the tuition is payable in advance, one-half at the beginning and the other half at the middle of the school year.

The sessions of the school begin at 8.30 A. M., and for pupils not taking the manual training course end at 1.30 P. M. For pupils taking that course the sessions end at 2.30 P. M.

As stated above, the course of study is arranged for four years; but from ten to fifteen per cent of the pupils admitted to the school either become discouraged and leave before the end of the year, or are obliged to go over the first year's work the second time. It seems to the superintendent that some plan should be adopted by which this class of pupils would be helped and encouraged. The course of study for the first year might be more varied; not so much in the subjects themselves as in the text-books used and in the methods of instruction. For the first half of the year no change in the present plan would be required. At the end of this time the standing of each pupil would be known, and those pupils who were not successfully doing the work could be placed in a division by themselves, and be given such instruction for the remainder of the year as would be the most helpful to them in taking up the regular work at the beginning of the next school year.

This would virtually be making a five years' course, differing from the four years' course only in the requirements for the last half of the first year; and pupils doing this work should be considered members of the fifth class, and not of a lower division of the fourth.

In the grammar schools there are special teachers to help those pupils who without personal instruction would fall behind their classes. Equally valuable would be the services of such a teacher in the high school. The change from the work in the grammar schools to that in the high schools is the most difficult one made by the pupils in their whole course of study. In the grammar schools the pupils are working under the constant guidance of their teachers. In the high schools the teachers meet their pupils for instruction only during the hours of recitation, while even more than in the grammar schools the pupils need the aid of a teacher in the preparation of their lessons.

Were a special teacher appointed for the high school, her work for the first half of the year might be of the same character as that done by the special teachers in the grammar schools, and during the last half of the year she might have the entire charge of the pupils of the fifth class. Were this plan adopted, not only would the pupils of the fifth class be under more favorable circumstances for final success, but those of the fourth class would do their work with more freedom and interest.

Manual Training School. The "Cambridge Manual Training School for Boys" was founded by Mr. Frederick H. Rindge. It is managed by a board of trustees. The land, the buildings, and the equipment were the gift of Mr. Rindge, and the current expenses of the school are paid by him. Although the manual training school is supported by private munificence, and the mechanical work is carried on under the direction of a superintendent responsible only to the founder, it is, nevertheless, in its essential features, a part of the public school system. All who take the regular course are enrolled as pupils of the English high school, and their academic work is carried on under the direction of the principal of that school. The school was opened in October, 1888. The first class numbered sixty-two. At the beginning, the course of study was arranged for three years. In 1893 it was changed to a four years' course. Six classes have graduated; the number of graduates being one hundred forty-one. The number of pupils in the school at the present time is one hundred fifty-nine.

Persons desiring fuller information in regard to the school are referred to the admirable catalogue and circular recently issued, a copy of which can be obtained on application to Mr. Charles H. Morse, Superintendent of the Manual Training School.

In the report of a year ago a record was made of the death of the superintendent of the school, Mr. Harry Ellis. Since that time two members of the supervising committee have died, the Hon. William Eustis Russell, the chairman of the committee, and the Hon. Samuel L. Montague. Mr. Russell died July 16, 1896; Mr. Montague, January 16, 1897.

These men came into intimate relations with Mr. Rindge, and rendered important service in the organization and management of the school.

Manual Training in the Grammar Schools. The manual training school provides for the pupils of the high school, but no provision has yet been made for giving instruction in manual training to the pupils of the grammar schools.

The committee appointed four years ago to consider the subject of manual training in connection with all the grades of the schools, urged that "as soon as practicable the elementary school course be enriched by manual training."

The lack of room in the grammar school buildings complicates the question of the introduction of manual training into these schools. A beginning, however, might be made by using the Quincy schoolhouse for this purpose. It is centrally located, and has two large well-lighted rooms.

The statutes require that every city of twenty thousand or more inhabitants shall maintain as a part of its high school system the teaching of manual training; and they also provide that the use of tools and the art of cooking shall be taught, by lectures or otherwise, in all the public schools in which the school committee deem it expedient; and that whenever such instruction is given the tools, implements, and materials required for such instruction may be purchased by the school committee at the expense of the city or town, and loaned to pupils, free of charge, subject to such rules as the committee may prescribe.

By the generosity of Mr. Rindge, Cambridge is at no expense in providing for the teaching of manual training in connection with the high school.

The educational value of manual training, as well as its practical value, is now generally conceded. It seems to the superintendent that the time has come for some definite action looking to the gradual introduction of manual training into all the grades of the schools.

Wellington (Training) School. This school was opened in September, 1884, and differs from the other schools in this respect, — all the grades, except the eighth and ninth, are taught by young teachers. Their work, however, is done under the immediate supervision of a master and three assistants, who are held responsible for the instruction and management of the school. For several years the seventh grade has been taught by a graduate of the training class.

The object of conducting a school on this plan is to give the Cambridge young women who desire to teach, and who have made special preparation for the work, an opportunity to gain experience under conditions favorable to their own success, and without prejudice to the interest of their pupils.

Graduates of the English high school or of the Latin school, who have also graduated from one of our State normal schools or from the Boston normal school, are preferred candidates for the position of teacher in this school. Other persons of equal attainments may be elected.

The required term of service is one year; but teachers may be excused or dismissed at any time by the committee on the training school.

That the direct influence of the school may be continued for a longer period than one year, it is the duty of the master or one of the supervising teachers to visit the schools of the graduates, if teaching in Cambridge, three times during the first year of service.

The money compensation for the service is two hundred dollars. Teachers employed after the required term of service are paid at the rate of three hundred dollars per annum.

The school contains all the grades of the grammar and primary schools, the number of pupils being about seven hundred fifty.

The cost of the school depends on the number of pupils. The limitation is, that the cost per pupil shall not exceed the average cost of pupils in the other schools of the same grades.

During the year forty-two young women have applied for admission to this school, and twenty appointments have been made. Of the one hundred forty-one graduates, one hundred sixteen, or eighty-two per cent, have obtained positions in the schools of Cambridge. Eighty-nine of these are still teaching, and this is nearly one-third of the whole number of teachers in the grammar and primary schools.

By the rules of the school board, the committee on the training school is authorized to employ six teachers, at a salary not exceeding four hundred dollars per annum, to act as substitutes in the grammar and primary schools, and when their services are not so required, to work in the schools to which they shall be assigned by the superintendent; the amount received by each teacher as a substitute to be deducted from her salary. These teachers are usually assigned to the training school, that there may be at that school a sufficient number of teachers to make it practicable for the members of the training class to visit other schools of special excellence.

Grammar Schools. The number of pupils in these schools on the first of December was five thousand nine hundred ninety-six, and the number of teachers, including masters and special teachers, was one hundred fifty-one.

The cost of instruction for each pupil for the year has been sixteen dollars twenty-four cents. This does not include the cost of supervision.

The course of study is for six years, but the schools are so classified as to give the pupils an opportunity to complete the course in four years or in five years. The average age of the pupils who entered last September was nine years eleven months. The number of graduates was four hundred sixty-seven, their average age being fourteen years ten and a half months. Of these, eight per cent completed the course of study in four years, thirty-three per cent in five years, forty-nine per cent in six years, and ten per cent in seven or more years.

Pupils are admitted by classes from the primary schools at the beginning of the autumn term; but individual pupils are admitted at other times, if it is deemed advisable by the sub-committee or the superintendent.

Promotions to the high schools, and from grade to grade in the grammar schools, are made by the teachers under the direction of the masters and the superintendent. No regular pre-announced examinations are held in these schools, but the results of such written exercises and written reviews as the teachers hold from time to time are used as a part of the basis of promotion.

The thoroughness with which the work is done in any school is shown in part by the ability of the pupils to do the work in the high schools. The pupils are admitted to the high schools on trial; and by a rule of the high school committee, any pupil who fails to maintain a suitable rank is reported to that committee, and no pupil thus reported can continue in either high school except by a special vote. Pupils not permitted to remain in the high schools have the privilege of going back to their respective grammar schools, and of returning to either high school at the beginning of the next school year.

In the grammar schools special teachers are appointed to help such pupils as seem able to do the work in less than six years, and to aid those who without personal instruction would require more than six years. This action of the committee removes the most serious objection to the graded system of schools.

Primary Schools. The primary schools are under the general supervision of a teacher known as a "Special Teacher of Primary Schools," whose work is done under the direction of the superintendent of schools.

The number of pupils in these schools, on the first of December, was five thousand three hundred forty-one, and the number of teachers was one hundred twenty-four, being an average of forty-three pupils to a teacher. The cost of instruction for each pupil for the year has been twelve dollars sixty-five cents. This does not include the cost of supervision or of special instruction.

The course of study is for three years. Children five years old are admitted to the first grade at the beginning of the school year, and during the first week in March. The average age of those who enter is between five and a half years and six years. Forty-four per cent of the pupils at the present time are in the first grade, thirty per cent in the second, and twenty-six per cent in the third.

One thousand two hundred seventy-three pupils graduated last June, at an average age of nine years nine and a half months. Of these, nine per cent completed the course of study in less than three years, sixty per cent in three years, and thirty-one per cent in more than three years.

Pupils are promoted to the grammar schools, and from grade to grade in the primary schools, on the judgment of the teachers, under the direction of the special teacher of primary schools and the superintendent. Promotions by classes are made annually at the beginning of the autumn term ; but individual promotions are made at other times, if it is deemed expedient by the sub-committee or the superintendent.

Pupils are promoted to the grammar schools on trial, and those who show by their work that they are unprepared are returned to the primary schools.

Kindergartens. There are now nine kindergartens, a new one having been opened last March in the Taylor schoolhouse. All the kindergartens are in school buildings except one, and that is in a house owned by Mrs. Shaw, who generously gives the city the use of two rooms furnished and heated. The number of pupils is five hundred one, and the number of teachers seventeen.

The cost of instruction the past year has been nine thousand one hundred eighty-five dollars, and the cost per pupil eighteen dollars thirty-three cents.

The good results of the kindergartens are becoming more and more apparent to the community. In no grade of the schools do parents show deeper interest.

Music. Instruction in music by the National or Mason System is given by the regular teachers in all grades, and in the high schools by the director of music. All the schools are under his supervision, and every pupil who is capable of learning to sing is required to give attention to the subject.

Twenty minutes a day in primary, and ten minutes a day in grammar grades are devoted to this study, and pupils are taught to sing and sustain their parts in reading from the simplest to the most difficult compositions in two, three, and four parts.

In the high schools forty-five minutes a week are given to the study of musical form and expression as found in choruses, quartettes, trios, etc., from the standard operas and oratorios.

Drawing. The course of instruction in drawing includes form, color, and designing.

The study of form by means of type models, clay modelling, and drawing, is begun in the first primary year, and is succeeded in the grammar grades by object drawing and drawing from nature. The latter subject receives especial attention during the spring and autumn months. Color is studied in all the grades. In this subject as in form study the method of instruction is a modification of the Prang system. No drawing books are used, but the manuals are retained for the use of the teachers.

Designing and historic ornament form an important part of the course.

Botany. The work in botany is begun in the first grade and continued through the three primary grades.

The course as outlined calls for material easily obtained in the vicinity of Cambridge; wild flowers in September, leaves and twigs in October, fruits and seeds in November, evergreens in winter, buds and seeds in early spring, and growing wild plants in May and June. These, with plants in the schoolroom and grounds, and contributions from the pupils, make the text from which they are led to study plants rather than to study about plants.

The result sought is a growing interest in plants, with the ability to recognize common plants when seen, and to discover their parts, qualities, and habits of growth, their life history from seed to seed, and their grouping into families.

Sewing. Sewing is taught to the girls of the three lower grades of the grammar schools. Forty-five minutes are given to the work once a week in each grade. Two teachers are employed the full time, and one teacher three-fifths of the time. The superintendent recommends that the boys of the fourth grade be allowed to join the class in sewing, if they show an interest in the work.

Cooking. No provision has yet been made for teaching cooking in the schools. The superintendent hopes that at no distant day the art of cooking will be taught to the girls of the upper grades of the grammar schools as is permitted by the statutes.

Vertical Writing. In September, 1894, vertical writing was introduced experimentally into the schools for one year. The experiment was tried in all the grades of three primary schools, and in the four lower grades of three grammar schools. The results were so satisfactory that the vertical system of writing was adopted for all the schools and is now in use.

Gymnastics. The Ling system of physical training has been introduced into all the grades of the primary schools, and into all the grades of the grammar schools except the eighth and ninth. Games supplementary to the gymnastic work have been introduced throughout the primary schools. These games are exercises in the form of play, and thus serve the double purpose of training and amusement.

Fifteen minutes are given each day to the gymnastic work. The instruction is given daily by the regular teachers under the supervision of the director of gymnastics, who visits each schoolroom as often as time will allow, and who also holds monthly meetings with the teachers.

Strict discipline in the schools is maintained during the period devoted to the learning of the forms of the gymnastic movements. The essential aim of the teaching is to make the gymnastic period one of healthful exercise and recreation, through the use of the movements which have become more or less automatic. To this end each movement is repeated several times, and is taken forcibly and freely and in varied rhythms.

Where it is practicable, as it is in the grammar grades, the discipline during the gymnastic period should be a matter of self-culture on the part of the pupil, prompted by a desire for health and a comprehension of the meaning of each movement.

School Libraries and the Public Library. The English high school has a library of about three thousand volumes. The Latin school has only about one-third this number. Comparatively few books of a miscellaneous character have been added to these libraries for several years, the public library meeting the demand for such books. The need of the schools is for books of reference and for sets of books for class study.

The grammar schools with the exception of the Morse and Webster are not supplied with books for general reading. These are obtained from the public library, and during the year from seven to eight thousand books have been delivered to the schools.

The library and the schools are brought into close relations to each other. The librarian has recently prepared a list of books of special interest to teachers, which will be found in the appendix of this report.

The librarian and his assistants spare no pains in making the library serviceable to teachers and pupils alike.

Evening Schools. There are five evening schools,—one high school, and four elementary schools. By the rules of the committee these schools begin on the second Wednesday of October, and continue Monday, Wednesday and Friday evenings for fifty evenings. The sessions begin at half past seven, and continue two hours. No session is held on the evening of a holiday or during the vacations of the day schools.

The evening high school is held in the English high school building, and instruction is given in the following subjects: Arithmetic, book-keeping, penmanship, English composition, English literature, civics, history, algebra, geometry, phonography, Latin, French, and German. The average attendance of the school for 1895–96 was one hundred twenty-four, and the average number of teachers was nine. The cost of instruction per pupil was ten dollars sixty-six cents.

The evening elementary schools occupy rooms in four of the grammar school buildings, — the Allston, Putnam, Shepard, and Webster. The statistics for these schools for 1895–96 are as follows: Average attendance in the Allston school, ninety-six; cost of instruction per pupil, five dollars sixty-four cents. Average attendance in the Putnam school, one hundred twenty-seven; cost of instruction per pupil, six dollars ninety cents. Average attendance in the Shepard school, twenty-nine; cost of instruction per pupil, nine dollars nineteen cents. Average attendance in the Webster school, sixty-nine; cost of instruction per pupil, six dollars eight cents.

The greatest hindrance to the prosperity of the evening schools is the irregularity of attendance. More than one-third of the whole number registered attend school less than one-third of the time.

Evening Drawing School. This school is under the supervision of the director of drawing for the day schools. It is open fifty evenings during the season, three times a week, beginning about the tenth of October. The school is divided into two classes, the mechanical and the free-hand. In the mechanical class, two complete courses are provided, — a three years' course in machine drawing, and a three years' course in architectural drawing. In the free-hand class, provision is made for a three years' course in free-hand drawing, and for a class in modelling in clay. The average attendance of the school for 1895–96 was: Free-hand class, forty; mechanical class, sixty-three. The cost of instruction per pupil, allowing five hundred dollars of the director's salary for his services in this school, was fifteen dollars sixty-three cents.

Truant Officers. Four officers are employed. Their work is done under the direction of a committee of the Board. The city is divided into four districts, and each officer has assigned to him the schools in one district. Among their duties in addition to those defined by the statutes are the following: To visit each school at least once a day; to assist the teachers in enforcing the regulations concerning contagious diseases; to prevent the children from loitering about the school premises; to be in attendance at the evening schools; and in the month of May to take the school census. Monthly meetings of the committee are held to hear the reports of the officers, and decide what action shall be taken in regard to the cases brought before them.

Truants are sent by the court to the Middlesex County truant school at North Chelmsford. Twenty boys have been sentenced during the year and twenty-three have been released. There were twenty-one boys from Cambridge in the school on the first of December. This school has gained an enviable reputation for its wise and kindly administration.

On the first of October Mr. Moses M. Child resigned his position as truant officer, having served the city for over twenty years in a most efficient and faithful manner. Mr. Lucian S. Cabot was elected to fill the vacancy.

Janitors. Section 31 of the city charter provides that "The mayor shall appoint the janitors of the schoolhouses, subject to confirmation by the school committee; and that such janitors shall perform their duties under the direction of the school committee."

Supervision of the janitors is assigned to the committee on schoolhouses and health. This committee has held meetings monthly during the year. The principals of the schools are required to report each month to the superintendent of schools whether or not the work is done in a satisfactory manner, and to report any occasion for complaint to the committee on schoolhouses and health.

In December Mr. Edward B. Dale was appointed to have the general supervision of the heating of the schoolhouses. His influence has already been felt in the securing of a more uniform desirable temperature, and in the more economical use of fuel. His duties might well be extended to the general oversight of the janitors' work.

Contagious Diseases. In 1894 the board of health in accordance with the request of the school committee appointed a health officer, whose duty it is to examine all cases of contagious diseases reported, and to direct the exclusion from the schools of all pupils whose presence will, in his opinion, be a menace to the health of others. He reports his action on every case to the secretary of the school committee. The health officer issues all certificates which authorize such children to return to school, as is provided by chapter 198, acts of 1885.

As a further precaution against contagious diseases, the board of health established February 26, 1896, a system of medical inspection of children in the schools. The city was divided into six districts, in each of which a physician was appointed to visit the schools each day. The physician examines only those children who are indicated by the teachers in the several rooms as having shown symptoms of illness, and such children are sent home if the physician so advises.

The following order was adopted in October. "Ordered, that, once in each term, it shall be the duty of the principal of each school to call the attention of the pupils to the following rule: 'No pupil who has visited any apartment in which a person is, or within two weeks has been, sick with small pox, varioloid, diphtheria, or scarlet fever, shall be allowed to attend school until the expiration of two weeks after such visit.'"

Terms, Holidays, and School Hours. The school year is divided into three terms:—

The time for beginning the autumn term is fixed annually at the regular meeting of the committee in April. The autumn term ends December 23.

The winter term begins January 2 (or the day after that celebrated as New Year's day), and ends on the last Friday in March.

The spring term begins on the second Monday after the last Friday in March, and the time for closing the spring term is fixed annually at the regular meeting of the committee in April.

The holidays are Saturdays; Thanksgiving day, with the preceding day and the day following; the twenty-second of February; the Nineteenth of April; Memorial day; the Seventeenth of June; and in addition to these, for the high schools, Commencement day at Harvard College.

The sessions of the high schools begin at 8.30 A. M., and close at 1.30 P. M. For pupils taking the manual training school course the sessions end at 2.30 P. M. The high schools have a recess of half an hour in each session.

The morning sessions of the grammar and primary schools begin at 9 and close at 11.45. The afternoon sessions begin at 2 and close at 4, except during the months of November, December, and January, when they begin at 1.30 and close at 3.30. The grammar and primary schools have no out-door recess.

The sessions of the kindergartens are from 9 A. M. to 12 M.

Teachers, Appointments, Salaries. There are now three hundred thirty-seven teachers in the schools of Cambridge. Thirty-seven of this number have been appointed during the year. During the same time the city has lost the services of an unusual number of able teachers. Three have resigned from the Latin school, one from the English high school, nine from the grammar schools, four from the primary schools, and four from the kindergartens. In addition to these the director of drawing and the teacher of gymnastics have resigned. One of these teachers, Miss Sarah J. A. Davis, for many years the principal of the Gannett primary school, served the city for a period of forty-four years.

There is no rule of the school board in regard to the qualifications of persons who may be appointed teachers in the Latin school and in the English high school, but during these recent years only graduates of colleges have been appointed.

No person is eligible to an appointment in the grammar and primary schools who has not had advantages equivalent to a high school course, a normal school course, and a year's experience in teaching. The same qualifications are required for admission to the training school, except the year's experience in teaching.

No person is eligible to an appointment in a kindergarten who has not taken a course of study for at least one year at some kindergarten normal school approved by the committee on kindergartens and the superintendent of schools.

It is the duty of the committee on examination of teachers to inquire and report as to the qualifications of all persons nominated to be teachers in the grammar and primary schools and in the kindergartens, below the grade of master, before final action on such nominations is taken by the Board.

It is also the duty of this committee to inquire and report to the Board in executive session, as to the success of any teacher in the employment of the city, when so requested by any member of the Board or by the superintendent, and no teacher whose success is under inquiry shall receive the regular increase of salary, except on the recommendation of this committee.

Any member of the Board who is dissatisfied with a teacher shall give notice of such dissatisfaction to the Board; and all further action in relation to such teacher shall be under its direction.

Experience in teaching, whether in or out of the city, may be considered in fixing the salaries of teachers.

For the Latin school and the English high school, all nominations at a salary other than the minimum shall be made only upon the recommendation of a majority of the high school committee.

For the grammar and primary schools, all nominations at a salary other than the minimum shall be made only upon the recommendation of the three members of the ward committee, or of two members and the superintendent.

For the kindergartens, all nominations at a salary other than the minimum shall be made only upon the recommendation of a majority of the committee on kindergartens.

Under the direction of the superintendent, teachers may visit other schools to observe the discipline and instruction. They may be required to attend teachers' meetings or courses of instruction in methods of teaching for one hour a week, unless excused by the superintendent. Such meetings may be held on Saturday morning during term-time, or at such other time, not in school-hours, as the committee on text-books and courses of study may direct. Meetings held by the superintendent, and meetings called by him, at the request of the director of drawing, or the director of music under the authority of the standing committee having supervision of the instruction in these subjects, are in addition to the above requirements.

The salaries of the teachers and school officers are as follows: —

Latin School and English High School.

Head Masters	$3,000 00
Masters	2,000 00
First Assistant	1,050 00
Assistants, first year	700 00

with an annual increase of $50 until $950, the maximum, is reached.

Temporary Assistants	500 00

Substitutes receive two-thirds of the salary of the regular teacher.

Wellington Training School.

Master	$2,500 00
Supervising Teachers (three)	800 00
Teacher of the ninth grade	700 00
Teacher of the eighth grade	620 00
Teacher of the seventh grade (one year's experience)	400 00
Teachers of the other grades	200 00

Grammar Schools.

Masters	$2,000 00
Sub-Masters	1,000 00
Masters' Assistants	700 00
Special Teachers	650 00
Assistants, first year	400 00
Assistants, second year	470 00

with an annual increase of $50 until $620, the maximum, is reached.

Substitutes receive one dollar a session.

Primary Schools and Kindergartens.

The salaries of the teachers of the primary schools and of the kindergartens are the same as those of the assistant teachers in the grammar schools. The assistants in the kindergartens receive for the first year $400, with an annual increase of $40 until the maximum salary, $520, is reached.

Principals of the primary schools receive, in addition to the regular salary, five dollars a year for each separate class in the schools under their charge, and principals of primary schools of seven or more rooms, who are employed in work corresponding to the duties of special teachers in grammar schools, receive thirty dollars additional salary.

The pay of substitutes in the primary schools is one dollar a session.

The pay of substitutes in the kindergartens is two-thirds of the salary of the regular teacher.

Special Teachers and Officers.

Director of Music	$2,000 00
Director of Drawing	1,700 00
Assistant Teacher of Drawing	800 00
Teachers of Sewing	600 00
Substitutes (continuously employed)	400 00
Superintendent of Schools	3,000 00
Special teacher in Primary Schools	1,000 00
Agent of the Committee on Supplies	2,000 00
Truant Officers (four are employed)	900 00
Secretary of the School Committee	300 00
Page of the School Committee	25 00
Secretary and Librarian of the Latin School	400 00
Secretary and Librarian of the English High School	500 00

Three times during the year the subject of an increase of salaries has been brought to the attention of the committee: First, in April, by the principals of the grammar schools; second, in November, by the sub-master and the seventeen assistants of the Harvard school; and third, in December, by the women teachers of the grammar and primary schools and of the kindergartens. The communication from the principals of the grammar schools was as follows: "The undersigned, principals of grammar schools, respectfully represent to your Board that there is a widespread feeling among the teachers of the grammar and primary schools that the salaries at present paid are not commensurate with the required qualifications, the duties and responsibilities of the principals and other teachers employed in these schools, nor with their necessary living expenses.

"While we refrain from asking a general increase of pay, believing that the conditions of the times may not warrant such action, we lay this expression of opinion before your Board, requesting that it be considered by the committee on salaries before making up their annual report, or that it be placed on file as may seem to you advisable."

This communication was referred to the committee on salaries. In May, this committee reported that it was inexpedient to make any general change in the salaries of the teachers, and that the petition of the masters be placed on file. At the June meeting the following order was offered and referred to the committee on salaries: Ordered, that after December first, 1896, the maximum salary for primary and grammar teachers be fixed at $700. The communication received in November was also referred to the committee on salaries. The one received in December was at first laid on the table that the committee on salaries might report on the order offered at the June meeting, namely, that after December first, 1896, the maximum salary for primary and grammar teachers be fixed at $700. The committee reported that it was inexpedient to make this change in the salaries, and the report was adopted. The communication that was laid on the table was then considered, and it was voted that the secretary communicate to the teachers the action of the committee in regard to salaries, and express to them the hope that some increase may be made at an early date.

This vote of the committee would indicate that the question of salaries is not yet settled. The superintendent, therefore, desires to bring to the attention of the committee some facts that have a bearing on the question and which may properly be considered when the subject again comes before the Board.

It may not be known to all the members of the committee that the salaries were once much higher than at the present time. They were as follows: Head master of the high school, $4000; master, $3,000; assistants (men), $2,500; master's assistant, $1,200; assistants (women), $1,000; masters of the grammar schools, $2,500; masters' assistants, $850; assistants, $700; principals of the primary schools, $700 and five dollars additional for each separate class in the school; other primary teachers, $700.

The present scale of salaries has remained substantially unchanged for the past fifteen years. During this time, however, greater demands have been made on the teachers. A fuller preparation for their work has been required. No one is selected for the high schools who is not a college graduate, and no one is eligible to an appointment in the grammar and primary schools who has not had what is equivalent to a high school course, a normal school course, and a year's experience in teaching. By the introduction of new subjects into the schools, the work has become more varied and exhausting, and while the school sessions have not been lengthened, grade meetings and lectures out of school hours have become more and more frequent.

In each of the communications from the teachers, reference was made to the increasing cost of living. It is undoubtedly true that the price of board is from one to two dollars a week higher than it was ten years ago, and it is not easy to secure desirable boarding places even at the present prices.

During the past year six teachers have resigned their places in Cambridge to accept positions in Boston,—one was master's assistant in the English high school, one was master's assistant in a grammar school, two were assistants in grammar schools, and two were sub-masters in grammar schools. The maximum salary of sub-masters in grammar schools in Boston is $2,340, that of assistant teachers, $936, and that of assistant teachers in high schools, $1,620.

It is difficult to secure teachers of *successful experience* to fill vacancies when they occur. Probably not one-half of the teachers who are invited to Cambridge accept the invitation.

It is not for the superintendent to say that the time has come for an increase in the salaries. He desires, however, to bear testimony to the faithfulness with which the great majority of the teachers do their work. Not in the schoolroom alone is their devotion shown. Never before have so many teachers been working along lines for self-improvement, and self-improvement means more valuable service.

FRANCIS COGSWELL,
Superintendent of Public Schools.

In School Committee, February 18, 1897.

Voted, That the report prepared by the superintendent be adopted as the annual report of the school committee for 1896, and that the secretary be authorized to append the names of the members of the committee thereto.

SANFORD B. HUBBARD,
Secretary.

Members of the School Committee for 1896.

WILLIAM A. BANCROFT, *Chairman ex officio.*

WILLIAM TAGGARD PIPER.
* ALBERT BUSHNELL HART.
ELIZABETH Q. BOLLES.
† FRANK W. TAUSSIG.
ROBERT O. FULLER.
ALPHONSO E. WHITE.
CAROLINE L. EDGERLY.
** ANNE CLARK STEWART.
EDWARD B. MALLEY.
WILLIAM H. CLANCY.
§ ELLEN M. COBURN.
CHARLES F. WYMAN.
‡ FRANK C. CHAMBERLAIN.
*** WILLIAM A. MUNROE.
MARY E. MITCHELL.
GEORGE P. JOHNSON.
CAROLYN P. CHASE.
FREDERIC W. TAYLOR.

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* Resigned, February 20.
** Resigned, May 21.
*** Resigned, June 18.
† Elected, March 10.
‡ Elected, September 29.
§ Elected, September 29.

REPORT OF THE BOARD OF PARK COMMISSIONERS.

To the Honorable the City Council of the City of Cambridge: —

Gentlemen: —The Board of Park Commissioners has the honor to submit herewith its fourth annual report for the year ending November 30, 1896, and also the third annual report of the General Superintendent of Parks, as required by Section 4 of the Ordinance establishing a Park Department.

There has been no further extensions of the total area devoted to park purposes during the year.

Additional areas amounting to 149,304.3 square feet have, during the year, been placed under the control of this Board and made subject to the provisions of the Cambridge Park Acts, by orders of the City Council, as follows: —

On March 11, 1896, the following order was approved by the Mayor: —

> *Ordered:* —That the public ground in Ward One, known as Winthrop Square, be and hereby is placed under the care and control of the Park Commissioners, as provided in Chapter 236 of the Legislative Acts of the year 1895.

On April 16, 1896, the following order was approved by the Mayor: —

> *Ordered:* —That the public ground in Ward Four, known as Fort Washington, be and hereby is placed under the care and control of the Park Commissioners, as provided in Chapter 236 of the Legislative Acts of the year 1895.

Cambridge Field.

Early in the year, plans for the Shelter were prepared by Andrews, Jaques & Rantoul, architects, and on March 5 the main contract for the erection of the building was signed by C. A. Dodge & Co. The plumbing contract was awarded to Isaac N.

Tucker, and the contract for the heating system to the Walker & Pratt Manufacturing Company. The work of surfacing the field has been prosecuted steadily throughout the season and a multitude of details necessary to complete the field have been attended to. With the completion of the Shelter, this fall, the work of construction upon Cambridge Field is about finished. Already the reservation has demonstrated its great usefulness as a recreative ground. As fast as portions of the field have been completed and opened to public use, they have been taxed to their full capacity. Upon pleasant days during the warm season the boundaries of the field seemed almost too contracted even for present use, and instead of there being any lingering criticism that "too much land was taken," it is more probable that the final criticism in the years to come will be that the city in 1893 lacked faith to take full advantage of the opportunities then offered in this neighborhood, but which can never be offered again.

The increase in real estate values in the immediate neighborhood of Cambridge Field is a matter of interest. When this Board, in 1893, recommended that this field be taken for park purposes, one of the reasons advanced was that in future years this enterprise would be justified by the enhanced value of the remaining property. At the time this recommendation was made there was little or no movement in real estate values in this neighborhood. The field was taken, and, within certain limits it is fair to claim that the increased values since then have been due to park influences. To ascertain what this increase has been and will be each year, a certain territory has been marked out and the assessors' valuations taken. In marking out this territory a very conservative claim has been made, and it is believed that within these lines it will be generally agreed that the increased values of the last three years may justly be said to be due to park influences.

The territory so considered is shown upon the accompanying plan, and is bounded as follows: Beginning at the railroad crossing, the front lots on the northerly side of Cambridge street are included to Willow street. The distillery property in not included. At Willow street the line crosses to the southerly side of Cambridge street, and continues to Windsor street, thence along the easterly side of Windsor street to Hampshire street, thence along the northeasterly side of Hampshire street to Bristol street, thence along the northerly and northeasterly side of Bristol street, across Portland street nearly to the ward boundary line, and then including the front lots on Portland street (which extend nearly to the ward boundary from Portland street), to Cambridge street at the point of beginning.

Within these limits, the area of taxable land in 1893 was 1,847,161 square feet. In 1896 the assessors taxed but 1,353,649 square feet, the remaining 493,512 square feet having been taken from the taxable lists for the park and new streets. With the park uncompleted on the first day of May, 1896, it would probably have met the expectations of the most confident, if it could have been shown that at that early date in park development, the city treasury had suffered no loss in the total amount of taxes collected from the realty in the territory under consideration. The result, however, is much better, for this territory in 1896 showed a valuation of $156,200 more than it did in 1893, as follows: —

	Square Feet Taxed.	Value of Land.	Value of Buildings.	Total Value.
1896	1,353,649	$442,000	$650,300	$1,092,300
1893	1,847,161	403,100	533,000	936.100
		$38,900	$117,300	$156,200

In other words, this territory, at the end of three years, after being reduced 26 per cent. in taxable area, on a tax rate of $15.10 on $1,000, showed an increased yearly earning for the city treasury of $2,358.62.

This creation of $156,200, due to park influences was, on the first day of May, more than the park had then cost. The total cost of Cambridge Field to December 1, 1896, is $194,733. But since the assessors' valuations on May 1, there has been an increase in this territory in new buildings to an approximate amount of $100,000, which will appear in next year's valuations. Cambridge Field has cost, to the present time, including all expenses of land, filling, surfacing, building the Shelter, etc., 35 cents per square foot. There is no land fronting on any of the four sides of Cambridge Field which can now be bought for less than 35 cents.

It is proposed to make in the annual report each year in the future, a statement of the changes in values in this territory. On a cost of $194,733 for the completed park, the annual expense to the municipal treasury (estimating 6 per cent. for interest and sinking fund requirements) will be $11,683.98. It is believed that within a very few years the amount which this territory will pay into the City Treasury in taxes in excess of the amount paid in 1893, will more than balance the annual cost of the park, although this means that every dollar invested in the park must create nearly four dollars outside.

River Road.

Early in the year it was decided to prosecute vigorously the work of construction along the river driveway from Boylston street to the Hospital land. Believing it to be of much importance that at least one small section of the river bank should be finished at once, as an object lesson to which attention might be directed and as furnishing an example not only for this city, but also for the other cities and towns through which the Charles flows, it was deemed wise to select that location where park-like effects might most quickly and easily be obtained, and where there was the most probability of an increase in the value of neighboring properties. Accordingly, the work on the river parkway this year has been almost entirely confined to this stretch between Boylston and Scorgie streets. Large amounts of filling material and gravel have been placed along this section, and the marshes and the land upon which stand the Lowell willows, formerly occupied by the Cambridge Casino, have been brought nearly to a final grade. The foundation for the roadway has been extended from Boylston street to the old wharf of the gaslight company. The unstable character of the material forming the old marsh has retarded the work of filling somewhat, and will add a considerable expense to the work of construction upon this section. Near Boylston street, the foundation is better, and here the work is more advanced. A strip of beach, extending from near the Boylston street bridge up the river 300 feet, has been built of stones and is of interest as showing how a greater part of the entire river bank above the walled esplanade might be treated.

With the widening of Boylston street according to the original suggestion of this Board, a decided improvement in this section is already to be noted, and, in consequence, interest is stimulated in the further development of this hitherto long-neglected territory. The broad avenue now connecting Harvard square with the bridge is the first of a series of improvements which will mark a new era in the history of this part of the First Ward.

The final treatment of the river bank waits for the damming of the river. This, however, does not materially affect the construction of the roadway and the inside walk, as is explained at length in the accompanying discussion of this question by the landscape architects. There is no doubt that as the arguments for the establishment of a dam either at the originally proposed location near Craigie Bridge, or at the sight now most favorably considered at the upper end of the esplanade are better understood, public opinion will very strongly favor such an enterprise. Believing that a project of such great merit must finally win approval, and that a dam will eventually be built, this Board deems it the prudent course to advance the work of construction of the River Road only in such ways as will be in harmony with this plan. Fortunately, there is sufficient opportunity for constructive work along the river banks to engage the full resources of the City, while this main question of the dam is pending.

East Cambridge Embankment.

The work of filling in the river reservation in East Cambridge has progressed throughout the year. The material has come from excavations for cellars in Boston and Cambridge and from the Subway. No other part of the Cambridge park lands is so favorably situated for obtaining filling material at equally low prices, and the work of raising this land above the tides is comparatively inexpensive. This fact, together with the indications which have multiplied throughout the year that the proposed park is already exerting a good influence upon neighboring properties, and that the recreative needs of this neighborhood will be provided for none too soon, confirm the Board in its previously expressed opinion that this will finally be considered one of the most successful parts of the entire park system, and that its development (economical methods being duly considered) should not be neglected.

Commercial avenue is now filled to grade nearly to the canal. The proposed bridge across the canal will complete the connection, and open a thoroughfare from the lower parts of Cambridgeport and East Cambridge directly to the great freight stations of Charlestown. There should be no unnecessary delay in securing legislative power to construct this bridge, in anticipation of the large demands which traffic will soon make.

Broadway Park.

During the season the reconstruction of Broadway Park has been completed. The new design, which last year could only be shown by a printed plan, is now to be seen upon the ground and fully justifies itself. During the latter part of the season the luxuriant turf of the central lawn was a great delight, and it is scarcely probable that any one would now revive the proposition to divide this lawn with another path. The location of the children's walk and playground in the portion of the park remote from the walks most frequented by the general public, has already been proven a success, and the protection of the children from the north wind and the dangers of the electric cars on Broadway by this arrangement, is appreciated by all who especially consider the recreative needs of little children.

With the exception of the children's walk and playground, all the spaces intended for public travel in Broadway Park have been surfaced with brick pavement. Some criticism has been made of this choice of brick, upon the principle that gravel or macadam surfaces are the more natural finish for parks. This principle is conceded by this Board, and the criticism upon the brick walks in this park would be just if these walks were to be used mainly for park purposes. But the main use of these walks is as thoroughfares by those who desire to pass from street to street, and as this use is even greater in winter than in summer, the same kind of a surface seems to be needed here as is needed upon the public sidewalks. The expense also has been a consideration, as a brick sidewalk is less expensive, when the cost of maintenance is considered, than one finished in macadam.

Commons and Shade Trees.

Cambridge Common, Dana and Hastings squares, the Public Library grounds and the grounds around the school buildings where there is any cultivation, have received the usual care during the year. As has been explained in previous years, these old reservations, in their present state, call for a yearly maintenance expense per acre out of proportion to the effects obtained. The remedy for this will be in reconstruction, as has already been done in the instance of Broadway Park. It is not, however, recommended that more of this work be done at present, save in the case of Winthrop square, where the department has already begun the work of resurfacing that ancient public ground. Much inviting work upon the long-neglected school-house grounds must also be still further postponed until more pressing park enterprises are completed. In the matter of schoolhouse grounds it should be understood that if it were possible to arrange for the care of these grounds by the janitors of the various buildings, the expense of putting some of them in good condition at the beginning of the season would not, perhaps, be beyond the present resources of this department.

The work of the General Superintendent upon the public shade trees has been very commendable, and we desire to call attention especially to that part of his accompanying report in which this subject is discussed. As in his previous reports, this question of the needs of the street trees will be found to be fully and intelligently treated, and it is to be hoped that these discussions will have the effect of informing and interesting the public upon a subject where education is so much needed. Even with the good equipment which this Board has for tree work, no satisfactory results can be expected unless the public co-operate in the work of preserving and cultivating the public trees.

Financial Statement.

During the year, bills have been approved by the Board and certified to the Auditor to the total amount of $227,460.43.

This amount is divided as follows : —

Park Lands and Construction	$218,460 74
Park Maintenance	8,999 69
	$227,460 43

These two amounts were expended as follows: —

Park Loan.

Amount appropriated February 26, 1896	$260,063 00
Amount of revenue	3,548 18
	$263,611 18

EXPENDED.

CAMBRIDGE FIELD:			
Land Account	$15,064 70		
Construction Account	50,400 46	$65,465 16	
RINDGE FIELD:			
Construction Account	$420 38	$420 38	
RIVER PARKWAY:			
Land Account	$66,887 87		
Construction Account	36,386 76	$103,274 63	
THE FRONT:			
Construction Account	$ 33,050 90	$33,050 90	
NURSERY:			
Construction Account	$642 68	$642 68	
BROADWAY PARK:			
Construction Account	$7,569 70	$7,569 70	
OFFICE EXPENSES:			
Construction Account	$2,167 77	$2,167 77	
GENERAL ACCOUNTS:			
Construction Account	$5,869 52	$5,869 52	
Total amount expended			$218,460 74
Balance of appropriation unexpended			$45,150 44

From the above it will be seen that the amount expended during the year under the Park Loan was divided as follows: —

Land Account	$81,952 57
Construction Account	136,508 17
Total	$218,460 74

Park Maintenance.

Amount of appropriation February 26, 1896	$9,000 00

EXPENDED.

General Maintenance Account	$8,999 69
Balance of appropriation unexpended	$ 31

A detailed classification of the expenditures will be found in the report of the General Superintendent.

Since the beginning of the work in 1893, there has been expended to date of money raised under park loans the sum of $657,942.06. The division is as follows: —

CAMBRIDGE FIELD:		
Land Account	$78,884 85	
Construction Account	115,848 15	
		$194,733 00
RINDGE FIELD:		
Land Account	$31,461 85	
Construction Account	3,760 15	
		$35,222 00
RIVER PARKWAY:		
Land Account	$228,595 54	
Construction Account	47,062 57	
		275,658 11
THE FRONT:		
Land Account	$45,231 40	
Construction Account	77,254 25	
		$122,485 65
NURSERY:		
Construction Account	$2,306 78	$2,306 78
BROADWAY PARK:		
Construction Account	$11,308 65	$11,308 65
OFFICE EXPENSES:		
Construction Account	$4,491 89	$4,491 89
GENERAL ACCOUNT:		
Construction Account	$16,230 37	$16,230 37
		$662,436 45
Less Park Revenue for 1894 and 1896, merged into Land and Construction Accounts		4,494 39
		$657,942 06

Of the whole amount of park loans expended to December 1, 1896, 57 per cent. has been for land and 43 per cent. for construction, as follows: —

Land Account (less "revenues")	$379,679 25
Construction Account	278,262 81
	$657,942 06

River Parkway Restrictions.

In making settlements for land damages upon the territory along the river taken for park purposes, wherever a deed has been passed and a part of the land still remained in the possession of the private owner, the Board has insisted upon the agreement of certain restrictions upon the remaining land. In such cases, the portion of the deed relating to restrictions provides that the City of Cambridge shall construct along the boundary line of the River Parkway a roadway and a walk to which the abutter shall have access, subject to such reasonable rules and regulations as may from time to time be made by the Park Commissioners, and that the abutting owner agrees to hold his land to a distance of one hundred feet from the boundary line, subject to the following restrictions: —

1. No building erected or placed upon said premises shall be used for a livery or public stable, or for any mechanical, mercantile, or manufacturing purposes, nor exceed five stories in height above the basement or cellar, nor exceed sixty feet in height from the mean grade of the edgestone or sidewalk in front to the ceiling of the extreme upper story (excepting churches or chapels), and no roof shall be used for laundry or clothes-drying purposes.

2. No wooden house arranged for more than one family, nor wooden block consisting of more than two houses, nor wooden house or block standing at a distance less than five feet from the side line of the lot upon which the same is placed, and no wooden house costing less than thirty-five hundred dollars, nor brick or stone house costing less than five thousand dollars, nor apartment house costing less than two thousand dollars per suite of apartments, exclusive in each case of the cost of the land, shall be erected or placed upon said premises.

3. No building shall be erected or placed upon said premises within twenty feet from the exterior line of said park; provided that steps, windows, porticos, and other usual projections appurtenant to the front wall of a building are to be allowed in this reserved space of twenty feet, subject to the following limitations, viz.: first, that no projections of any kind (other than door-steps and balustrades connected therewith, and also piazzas projecting not more than ten feet) shall extend more than five feet from the rear line of the aforesaid space; second, that no projections in the nature of a bay-window, corner-bay, circular front, or octagon front, with the foundation wall sustaining the same (such foundation wall being a projection of the front

wall), will be allowed (excepting oriel windows above the first story on a street corner), unless any horizontal sections of such projections would fall within the external lines of trapezoids, the sum of whose bases upon the rear line of the aforesaid space does not exceed seven-tenths of the whole front of the building, and the base of any one of which trapezoids does not exceed eighteen feet, and whose side lines make an angle of forty-five degrees with the base; and each house in a block shall be considered a separate building within the meaning of this limitation.

Upon other lands, not covered by such deeds, which abut upon the River Parkway, the Board will impose the same restrictions, as the conditions upon which these abutters may open their frontage and secure the advantages of a parkway approach to their property.

The desirability and necessity of these restrictions have been clearly established by the experiences of other cities in the development of park areas, and it is believed that the conditions imposed set a standard none too high. Many instances might be cited where large tracts of land have been developed by private owners who have voluntarily placed upon their properties more exacting restrictions.

Concluding Remarks.

In the annual appropriations for park work for the year 1897, this Board trusts that there will be no departure from the policy of park development which the City Council established in 1892 and 1894. In 1892 the City Council asked for and obtained legislative authority to borrow outside the debt limit the sum of $500,000 for park purposes. In 1894 the City Council asked for and received permission to borrow an additional sum of $500,000, in amounts not exceeding $100,000 each year for five consecutive years. Thus, beside the balance of the $700,000 yet unexpended, there is available for the next three years the sum of $300,000, making a round million of dollars in park development with which to begin the twentieth century. There should be no faltering from the full execution of this plan so carefully considered in the years 1892 and 1894. One of the chief characteristics of a highly developed and intelligently ordered municipal life which differentiates it from lower municipal organisms, is the continuity with which it carries great enterprises from a well-considered plan, through a series of years, to a consummation. The steadiness with which the original plan is adhered to will be a test of the character of our municipal life. No extraordinary obstacle has been presented since the planning of 1892 and 1894 which would justify a change or which would make reasonable a loss of faith in the idea of park development.

For much of the success attending the work of the department the commisioners are indebted to the faithful and efficient labors of General Superintendent Cook. We desire at this time to express our appreciation of the able services he has rendered during the term of his appointment, and our regret that we are obliged at this time to accept his resignation. He surrenders his present position to again engage in mercantile life. That Mr. Cook is adapted to the work in hand and has intelligently and economically met the emergencies that have arisen, is the unanimous opinion of this board.

Respectfully submitted,

HENRY D. YERXA.
JOHN O'BRIEN.
GEO. HOWLAND COX.

REPORT OF THE GENERAL SUPERINTENDENT OF PARKS.

CAMBRIDGE, December 1st, 1896.

To the Board of Park Commissioners of the City of Cambridge:—

GENTLEMEN: I have the honor to present my third annual report as General Superintendent of Parks, covering the financial year 1896.

Cambridge Field.

The work of completing Cambridge Field was considered of first importance this year. As soon as the weather permitted in the spring the erection of the Shelter was begun. The contract called for the completion of this building by the first day of August, but several unavoidable delays continued the work to the close of the year.

The work of planting was carried on during the spring season, but was not entirely finished. The building of the macadam walks, the surfacing of the six acres of gravel-topped playfield, the paving of the girls' and the children's playgrounds, and the building of the sand courts, which are made of granite, have been some of the more important features of the work this year. Special attention has been given to the turf areas, with most satisfactory results. The work has been hindered by the lack of a steam roller for the macadam spaces, the department having to depend upon such rollers as could be hired for the purpose. Much difficulty also was experienced in obtaining cracked stone of suitable quality in sufficient quantities.

The work which yet remains to be done in the spring is the completion of a portion of the York street macadam mall, the planting of a few more shrubs, and the erection of the permanent lighting system. There are at present nine arc lights upon the Field, placed upon temporary wooden poles with overhead wires running from the side streets. When it has been determined how many are needed and the permanent location of the lights, iron poles of an approved pattern will be set up and the wires carried through conduits to the streets. The maintenance of these lights is provided for by the general appropriation for street lamps, and has not been considered a part of the park maintenance.

The Field has been used by large numbers of people throughout the year. During the winter the playfield was flooded, and for the most of the season kept free of snow. There were 35 days of skating, and during this time many thousands enjoyed the sport. The order was excellent, and the rule established by the Board prohibiting sticks and sleds from the ice was strictly observed, although it was contrary to the custom of the skaters who used to frequent the old Foundry Field. On the day and evening of the semi-centennial celebration in June, the field showed its usefulness, and the entire twelve acres were taxed to their full capacity. Sports, games and a band concert drew many thousands to the Field. During the summer two band concerts were given upon Thursday evenings. The lighting system not being established upon the Field at the time, the occasions were not entirely satisfactory to those who came to listen to the music. With the completion of the Shelter a space for band concerts will be brilliantly lighted, and if the City Council should decide to continue the plan of furnishing music on summer evenings next year, much better arrangements will be found upon the Field. The period of excessively warm weather in August was an occasion for demonstrating the great usefulness of the Field as a "breathing space." Crowds remained upon the walks until late hours in the night. During the mild season this fall, some of the public kindergartens have made daily visits to the Field in their morning walks.

It is obvious that after the careful planning and large expense which has entered into the construction of Cambridge Field, the completed park should be so administered as to yield the largest possible dividends. It is not to be expected that the people, unaided, will discover all its usefulness, and if they are merely permitted to use it without direction (except to be prohibited from destructive usages) but a small part of all the great opportunities of Cambridge Field will ever be realized. Especially is this true regarding the countless number of children and youth who are destined to make this place the centre of their physical activities, and who are in later years to associate Cambridge Field with many of the brightest days of their early lives. It is possible — through wise administration — that the Cambridge Field boy may become a distinctive type; a boy whose manner shall be suggestive of the park rather than of the street, whose sports and games shall be especially characterized by the spirit of fair play, and whose sense of beauty and orderliness shall be developed by his association with true and well preserved examples of landscape art. This cannot be brought about, however, if the boy be merely tolerated upon the park and no attempt be made to direct his activities. From the time of his first arrival upon the field as an infant in his carriage, until as the captain of the victorious base-ball team he becomes the hero of the neighborhood, it will be possible to surround him with habits of clean conversation, respect for authority, regard for the special rights of the weak, fair play toward his equals, personal cleanliness, and many more of the virtues which make a good citizen. To so administer the affairs of this park as to effect this in every proper way is, as I conceive of it, the duty of the General Superintendent.

In thickly populated districts like that which surrounds Cambridge Field, children are not only usually deprived of the use of broad areas for play, but they even lack the knowledge (to a considerable degree) of how to use such a field when it is provided for them. Many of the simple, invigorating games of the village boy are novelties to the city-bred boy, whose exercise has chiefly been to dodge vehicles and electric cars upon the crowded streets. To teach children, and especially half-grown boys, how to engage in healthful games is, therefore, one of the opportunities of Cambridge Field.

The growing interest in athletic sports (especially field and track athletics) upon the part of the American youth is a most encouraging sign. That youngsters should apply to themselves in their sports, the term of "men," that they should voluntarily associate in "team-work," and cheerfully submit to the decrees of their umpires, and subject themselves to rigorous training as is often the habit now with schoolboys, proves that the value of discipline is a growing idea in the youthful mind. This idea should be encouraged. I have observed in the city-bred boy's play, and especially of the Cambridge Field boy, that all his "scrub" games of ball, and his "tackling" and "punting" in football are regarded merely as rehearsals for match "events." It is curious to note at how tender an age the idea of association for competitive sports shows itself. In the sand courts, individualism runs riot, but the higher idea of association seems to possess the boy upon his graduation to the playfield. It would, therefore, be unwise to ignore this by prohibiting match games entirely upon the Field.

There is danger of course, that match games may become mere spectacular events in which the performance of a few may engross the attention of the many who might better be exercising on their own account. If the playfield were to be so monopolized all the time it would certainly be a misuse; but match events are to be regulated by licenses issued by the park authorities, and so the rights of the many individual players and practice teams may be protected, and by an occasional match game between expert players, a higher standard of skill and endurance may be set before the untrained youth. The use to which the playfield should be usually put, without doubt, should be as "a playground for large numbers of children, boys and young men, and not as a place for exhibition games at which the many are mere spectators, while eighteen or twenty-two youths perform as players of base-ball or foot-ball," yet it would seem that the full dividends could not be collected on the cost of the Field if an occasional use were not made of it for exhibition purposes. Indeed, this principle has already been established in the planning of that part of the Field adjacent to the Shelter. In the arrangement for band concerts there will be occasional afternoons and evenings when a score of men will perform as musicians, and the many will be mere listeners.

It should be well understood that the six acres of gravelled playfield is designed, primarily, for the athletic recreation and education of the city's boys of school age. Other uses should not only be sparingly allowed, but should be prohibited if they conflict with the main purposes of the playfield. Upon holidays and in the evenings of the long summer days, men who have been confined in shops and stores will come upon the playfield in large numbers for recreative sport, after the workaday grind. This has happened during the past season, and may be expected to be repeated in the future. If, however, during these brief periods, the children and boys are somewhat inconvenienced in their play, it does not appear that any injustice will be done.

That Cambridge Field may be a success, it should be universally understood that its various uses are regulated according to duly considered plans issuing from those having authority. In the miniature government of Cambridge Field, as in larger fields, Burke's theory will be found true, that "a weak government is the worse form of tyranny."

The organization of the permanent force for the administration of the Field has not yet been effected, but will be the work of the coming winter and spring. Here is a considerable task, if we may judge from the experiences of other cities, and from the needs which have developed as Cambridge Field has progressed toward completion. I will, therefore, offer some suggestions as to the duties of the persons who are to be permanently employed upon the Field.

The Field should be in the charge of a Superintendent who should have authority over all who are employed upon it, and who should be immediately responsible for whatever happens there. The ideal Superintendent of the Field would be a man who has a sufficient knowledge of gardening to cultivate the plantations and keep the turf in fine condition, and with enough botanical knowledge to answer intelligently the inquiries of visitors, and with an appreciation of the park design which would lead him to point out the ever changing beauties of the lawns and shrubberies. He should have an interest in and a knowledge of sports and games which would enable him to direct the boys and young men in their use of the playfield. He should have sufficient decision of character to enforce at all times the rules for the public, established by the Board, and to direct the police in their duties. He should, of course, be neat, systematic, alert and courteous. But beyond all these qualities which can be defined, there is needed a large intelligence and an enthusiasm to make use of all the opportunities which the Field presents to educate the youth who frequent it. I regard it as a position requiring equal intelligence and devotion, at least, to that expected of the head masters of our grammar schools, although the special knowledge required runs in somewhat different lines. The results of such a man's labor would justify a long career upon the Field.

There should be a Matron of the Field, whose duty it would be to preside over the women's quarters in the Shelter and whose special care would be the little children who frequent the sand courts and the girls' playground. A natural sympathy with child-life and a training to some extent at least in kindergarten methods, are essential elements in this Matron's character. As to the duties, the admirable course marked out by the committee of the Massachusetts Emergency and Hygiene Association who have charge of the women's and children's division at Charlesbank in Boston is an example of what should be, in part, attempted on Cambridge Field. Here, as in the case of the Superintendent, a woman trained to the work, possessing tact, and having a real humanitarian interest in her work, might accomplish large and lasting results. A single walk around the oval path with a group of children might be made a distinct journey in the young lives of these little people, if the Matron had the teacher's gift of unfolding the lessons of Nature. A half-hour's chat with the mothers who frequent the sand courts with their children, upon the best method of governing the little ones, might be of incalculable benefit in the homes of the neighborhood.

The main idea in the Matron's dealings with her charge should be *direction* rather than *restraint*, as, indeed, this should be the controlling idea in the entire administration of the Field. How to direct visitors into the fullest legitimate use of the Field rather than how to restrain and confine, is the main study.

And this idea should prevail even with the policemen who are employed to patrol the Field. Unlike the street patrolmen, these officers should realize that the detection or prevention of crime is not their main business. Instead of being known as policemen, they should be designated "care-takers" or "park keepers," and should understand that their service is chiefly for the nine hundred and ninety-nine well-disposed persons rather than for the one lawless individual. To differentiate these officers from the street police they should wear uniforms of another pattern, and to emphasize the importance of neatness and good manners, they should wear gloves whenever on duty. A bicycle equipment to enable these officers to get over the Field quickly would be an advantage.

All members of the administrative force of the Field should wear uniforms, including the gardeners and the Shelter janitor. These uniforms should be made a distinction of which the workmen would be proud. The recent experience of Colonel Waring of the street-cleaning department of New York shows that instead of uniforms being a mark of servitude they may become an honorable distinction which workmen will covet, and an important aid in the efficiency of public works.

All the members of the administrative force should understand that while they are to enforce the park rules they should do so courteously. They should never call loudly to a transgressor at a distance. They should so carry on their work as to interfere as little as possible with the convenience and pleasure of the public.

The proper use of the Shelter should be well understood. Its main use is for mothers, old people and children, although no person behaving properly will be excluded. Because the large majority of those frequenting the Shelter will be women and children, smoking should be forbidden, both in the building and on the veranda. The games of the children carried on within the Shelter should be such only as are suitable to indoors recreation. While the superior character of the building itself will impress upon visitors the need of clean and orderly habits, this should be supplemented by the vigilance of the janitor and the other park employees.

River Parkways.

Work along the river bank has been this year confined almost entirely to the district between Boylston and Scorgie streets known for the purposes of construction as Section G. During the year 24,593 loads of filling were placed upon this section, the amount paid for the same being $20,966.31, or an average price of about 56 cents per cubic yard. The amount paid for the loam which was piled upon the section this year was $5,012.84. Bids were invited in an advertisement dated July 18, 1896, for furnishing curbstones to finish about one-half the driveway of the section, but as the bids were unfavorable, no contract was made. A renewal of this advertisement should be made this winter. By an agreement with the street and sewer departments, a surface-water drainage system was built in Boylston street, including the four catch-basins and connections at the corners formed by the intersection of the driveway with Boylston street. The proportion paid by the Park Department was three-fifths, the amount being $890.11. For a distance of about 300 feet, a steep beach was built between the locations for the two bastions which are to be at the ends of Boylston and Murray streets. This beach was made of field stones, placed by hand, and is expected to withstand the grinding of the river ice.

The foundation for the roadway from Boylston street to the old gas house wharf is nearly completed, and is of an excellent quality of gravel. As there is a sub-foundation of marsh, however, it must be expected that this road will settle. It would not, therefore, be wise to construct the final expensive surface of this roadway next season. A thin layer of cracked trap rock, well rolled, would make a wearing surface which would probably be sufficient until such time as it would be prudent to construct a Telford road.

No plan has yet been determined upon for the system of house drainage to serve the abutting properties, nor for the water supply, the gas mains, or the conduits for electric wires. As there will be no back passageways to most of the properties which front upon this section of the parkway, this underground work will necessarily have to be laid in the inside walk of the park land. It is intended that the surface drainage of the parkway shall be collected by catch-basins at distances of 200 feet along both sides of the roadway and then discharged directly into the river.

Upon the marshes opposite the Longfellow garden a poor foundation has caused a heavy settlement in the filling. The old marsh land here contains many springs and natural water courses to the river. A thorough drainage of this land will be necessary to make the filling stable.

The trees recommended by the landscape architects for planting along this section of the River Parkway are the oriental plane (*Platanus orientalis*).

It should not be forgotten that in the work along this part of the river bank, we are dealing with land which has the longest and some of the most interesting history of any in the old town. Some of the historic spots might be marked as the work progresses, and it would be possible to so name the divisions of the driveway and turf spaces as to enable visitors to identify old locations. Here upon this section of the river parkway also, are some of the places and views made famous by the Cambridge poets. The number of strangers who daily, during the past year, have visited the park land with guide book in hand, and who have inquired of the workmen concerning these famous spots, indicates how popular this section of the park reservation will be when completed.

The filling on Section D this year has amounted to 518 double loads, the amount expended being $181.30.

The filling on Section F has amounted this year to 355 double loads, the amount expended being $124.25.

Broadway Park.

The work of rebuilding Broadway Park is finished, with the exception of erecting the lighting system. The total amount expended in this work is $11,308.65. This is an expense per square foot (including the Harvard-street entrance) of ten cents. Thorough work has been done. The trees have been supplied with an abundance of loam, and will thereby be benefited for many years so come. The system for irrigating the park is so arranged that one man in a few hours can thoroughly sprinkle the entire area. This, with the liberal depth of loam, insures a good turf, and it is here that the experiment might be made under the most favorable conditions of permitting children to play, at stated times, upon the grass. A public patrol has been maintained here during the season in the evenings and Sundays. Good order has prevailed and the residents in the neighborhood have noted much improvement in this respect.

Attention is again called to the fact that this reservation has never been formally named, and that something more appropriate than the accidental name of "Broadway Park" should now be given it. The suggestion of the late Lucius R. Paige, that this park might be named in honor of Thomas Danforth, who lived and owned land in this neighborhood, merits consideration.

East Cambridge Embankment.

The work of filling upon this reservation has progressed steadily throughout the year. A portion of the time filling material has been received during the night as well as by day. The outside of the sea wall has been ballasted by contract, and a short dam of ballast was placed at the end of Commercial avenue to prevent the mud from being pushed into the canal. Along the inside of the wall sufficient ballasting has been secured at filling prices to keep ahead of the fill. The amount of filling material received per day has ranged from less than one hundred to eight hundred double team loads.

Rindge Field and Nursery.

No work of construction has been done upon Rindge Field the past year. The grass was mowed during the season and the Field was kept clean. A police patrol was maintained part of the year. Two arc lights have been placed in the Field, by order of the City Council, and are maintained under the regular appropriation for street lamps.

It has been a good growing season in the Nursery, and the stock is now in fine condition. The list is now as follows: —

Trees.

Acer platanoides	216
Acer platanoides Schwerdlerii	3
Acer dasycarpum	82
Acer saccharinum	23
Quercus rubra	851
Quercus macrocarpa	146
Fraxinus acuminata	200
Ulmus Americana	243
Tilia Americana	151
Pyrus aucuparia	10
Platanus orientalis	256
Populus fastigiata	19
Fagus Americana	3
Fagus sylvatica var. purpurea	9
Fagus sylvatica var. pendula	1
Koelreuteria paniculata	2
Cornus florida	35
Cercis Canadensis	2
Morus alba var. Tea's Weeping	1
	2,253

Shrubs.

Lonicera brachypoda	230
Lonicera tatarica	27
Buxus sempervirens	50
Mahonia aquifolia	75
Berberis Thunbergii	750
Berberis vulgaris	325
Symphoricarpus vulgaris	435
Kerria Japonica	111
Syringa vulgaris	41
Syringa vulgaris var. alba	7
Rhodotypus kerrioides	20
Caragana grandiflora	4
Clethra alnifolia	20
Lycium Barbarum	12
Aralia pentaphylla	14
Hypericum prolificum	14
Philadelphus coronarius	15
Cornus sericea	5
Cornus sanguinea	7
Carried forward	2,162

Brought forward	2,162
Viburnum opulus	17
Viburnum dentatum	24
Viburnum plicatum	2
Hydrangea arborescens	12
Hydrangea paniculata grandiflora	47
Rhamnus cathartica	10
Amorpha fruticosa	12
Diervilla trifida	18
Euonymus radicans	50
Pyrus Japonica	29
Myrica cerifera	1
Spiræa Van Houttei	380
Spiræa Douglasii	6
Spiræa Thunbergii	191
Spiræa tomentoso	463
Spiræa salicifolia	250
Spiræa opulifolia	83
Rhus copallina	35
Rhus typhina	102
Rhus glabra	12
Ilex glabra	33
Staphylea trifolia	8
Ligustrum ovalifolium	25
Vinca minor	50
Rosa lucida	1,000
Rosa multiflora	315
Rosa rugosa	609
Rosa rugosa var. alba	268
Kalmia latifolia	50
Rhododendron maximum	29
Rhododendron Catawbiense	91
Deutzia crenata	8
Deutzia gracilis	67
Forsythia Fortuni	73
Weigela candida	9
Weigela amabilis var. variegata	50
	6,591

Winthrop Square.

The work of reconstructing Winthrop square has been delayed by the widening of Boylston street and by the excavation for the Metropolitan water-supply pipes. The old fence has been removed. The place is now ready for an early start in the spring, and the grading can be finished so that the planting may be done in the fall.

The Commons.

The usual work has been done on Cambridge Common, Dana and Hastings square.

At the semi-centennial celebration of the incorporation of the city this spring, a memorial tree was planted upon the common, nearly opposite Holmes Place, and a stone tablet placed near by. Appropriate exercises were held. The spot upon which this young tree now stands is where the oak-tree formerly stood under which some of the early colonial elections were held, including the election which ended the colonial career of Sir Harry Vane. The present tree is a growth from the old Washington elm. The following are copies of certificates as to the genuineness of the tree and the location : —

Mr. George R. Cook,
Superintendent of Parks, Cambridge, Mass.:

Dear Sir: It gives me pleasure to present to the City of Cambridge the elm which you are to use in connection with the celebration of June third. This elm is the only one I know of which is grafted from the Washington elm, and I can certify most positively that this elm was grafted from wood taken from the old elm standing at the junction of Mason and Garden streets. It has always been marked in such a way that its identity cannot be questioned, and I am glad that the city will be able to plant it out and preserve it, so that when the original tree shall have departed, the city may have a living reminiscence of it for many years to come.

Very truly yours,
Shady Hill Nursery Company,
E. L. Beard,
President.

June 4, 1896.

John J. Ahern, Esq.,
Secretary Committee on Tree, Semi-centennial Celebration:

Dear Sir: The spot in which the young elm-tree is planted on Cambridge Common marks the location of the old oak-tree mentioned in Dr. Abiel Holmes' "History of Cambridge," as the place where some of the early colonial elections were held. The spot was pointed out to me by my father when I was a lad, and your committee can be assured that you have now remarked a most interesting historic place.

JOHN HOLMES.

The Public Shade Trees.

I have recently made an attempt to gather information concerning the care and condition of the public shade trees in the cities of the Commonwealth, and have thus obtained some interesting facts. A number of questions were sent out and answers were received from each one of the thirty-two cities. In answer to the inquiry whether the public shade trees are gaining or losing in number and condition, the officials of seventeen cities gave it as their opinion that there was a gain; ten reported a losing condition, and five reported that no change had been noted.

It appears that during the present year there has been expended from the municipal treasuries of the Commonwealth the sum of $20,363.98 for the cultivation of shade trees in the public streets. Of the thirty-two cities, thirteen report that nothing was appropriated or expended, thus showing that this work is not yet accepted in all parts of the Commonwealth as a municipal function. Some of the cities depend entirely upon private effort, and in some others interest either public or private appears to be wholly lacking.

It is a curious fact that street tree culture as a municipal enterprise has made so small progress up to the present time in Massachusetts. If it be granted that the shade and decoration afforded by trees are desirable additions to city streets, then the reasons for making the work wholly a corporate enterprise, rather than depending upon desultory private effort are very apparent. The city should plant and maintain its own trees, as much as it should pave its own streets. The public statutes give cities and towns this authority, and the opportunity should be used. In this way the work can be superintended by experts, and the planting can be done from a municipal nursery where selected stock is produced with a saving of all the nurseryman's profits. Individuals are often reluctant to plant and nourish trees which they cannot expect to enjoy. To quote from a previous report, "trees are long-lived and therefore of slow growth. Men are short-lived at the best, and families are less firmly established upon the soil than was formerly the case in our cities. Men do not, therefore, readily begin a work which they or their children will probably never see mature. But the city will have long life — longer than the most promising tree — and so can very properly engage in a work which will continue through many generations of men."

Again, to secure the uniformity of effect which is necessary to harmonize with the formal lines of city architecture, there should be upon any one street a continued repetition of the same species of tree at measured distances. The beauty of a country roadside is enhanced by the diversity of its tree growth, and the individual choice of each abutting owner will secure a constant change of form and color, which gives ever renewed pleasure to the wayfarer. But when the trees must stand in long rows between parallel lines of buildings, individual selection of trees should no longer prevail; for under these conditions a rural landscape effect is impossible, and any suggestion of the idea is grotesque. There must be unity in plan and system in planting in city streets, and in this, as in so many other ways in urban life, is illustrated the fact that the freedom of individual choice and action enjoyed under rural conditions in city life must give way to community action guided by recognized standards of good taste.

Certainly the street shade trees are not an unimportant factor in the pleasures of city living, and it cannot yet be said that the municipal effort in this direction meets the needs of the 1,635,767 people (census of 1895) who live under urban conditions in Massachusetts.

The following table shows the year's expenditure as reported by each city: —

	Population, 1895 Census.	Amount expended for trees 1896.	Condition of trees.
Boston	496,920	$6,000 00	Losing.
Salem	34,473	1,781 40	Gaining.
Lowell	84,367	Nothing.	Losing.
Cambridge	81,643	3,000 00	Losing.
New Bedford	55,251	Nothing.	Losing.
Worcester	98,767	2,500 00	Gaining.
Lynn	62,354	Nothing.	Losing.
Newburyport	14,552	200 00	Gaining.
Springfield	51,522	2,300 00	Gaining.
Lawrence	52,164	Nothing.	Gaining.
Fall River	89,203	Nothing.	Losing.
Chelsea	31,264	300 00	Losing.
Taunton	27,115	Nothing.	Gaining.
Haverhill	30,209	Nothing.	Gaining.
Somerville	52,200	500 00	Gaining.
Fitchburg	26,409	500 00	Losing.
Holyoke	40,322	500 00	Gaining.
Gloucester	28,211	Nothing.	Gaining.
Newton	27,590	300 00	Gaining.
Malden	29,708	Nothing.	Gaining.
Brockton	33,165	Nothing.	No change.
Northampton	16,746	400 00	Gaining.
Waltham	20,876	100 00	No change.
Quincy	20,712	50 00	No change.
Woburn	14,178	Nothing.	Losing.
Pittsfield	20,461	300 00	No change.
Chicopee	16,420	Nothing.	Gaining.
Marlborough	14,977	157 58	Losing.
Medford	14,474	1,100 00	Gaining.
Everett	18,573	75 00	Gaining.
Beverly	11,806	300 00	Gaining.
North Adams	19,135	Nothing.	No change.
	1,635,767	$20,363 98	

The average tax on account of shade trees in the Massachusetts cities was a trifle more than one cent on each $1,000 of assessed estate.* In Cambridge, this year, the tax for the care of shade trees has been about three and one-half cents on each $1,000 of assessed estate.† Thus it is seen that the shade-tree tax in Cambridge at the present time is about three and one-half times the average city tax in the Commonwealth for this purpose. It will also be seen by the above table that Cambridge actually expended a larger sum the past year for this work than any other Massachusetts city, with the exception of Boston.

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* The total valuation of assessed estate, real and personal, of the thirty-two cities in 1895 was $1,891,742,342.

† The total valuation of assessed estate, real and personal, of Cambridge, in 1896 was $83,750,095.

It should be noted, however, that but a small part of the $3,000 expended in 1896 for work upon public shade trees in this city was used for the improvement of the trees. A larger part of this appropriation was expended in the work of removing trees than was expended in planting new or cultivating old trees. The chief item of expense, however, was the trimming of branches at the request of abutters. Very little of this latter work has been done with reference to the welfare of the trees, the requests being almost all made because of some inconvenience to abutting property. The conclusion to be drawn from this is that the convenience of property owners, when annoyances were caused by neighboring public shade trees, has been more liberally considered in this city than in any other city in the Commonwealth.

The real work of tree culture — the improvement in numbers and condition — has been prosecuted only after the complaints of abutting owners have received attention, and with the small amount of money then remaining.

The department records show that during the year 28 trees have been felled by order of the Board of Aldermen, and in addition 104 dead and dangerous trees have been removed. The number planted this year is 258. The number of trees protected by wire guards this year is 1,008. The number of recorded cases of tree trimming for the year is 668.

The trees removed were as follows : —

Ulmus Americana	69	Acer rubrum	2
Æsculus hippocastanum	27	Acer platanoides	2
Acer saccharinum	20	Ulmus campestris	5
Quercus alba	1	Populus candicans	2
Tilia Americana	1	Pyrus malus	1
Salix alba	2		132

The trees planted were as follows: —

Ulmus Americana	84	Acer rubrum	5
Ulmus campestris	2	Acer dasycarpum	5
Quercus macrocarpa	1	Acer saccharinum	21
Quercus rubra	64	Acer platanoides	75
Acer platanoides Schwerdlerii	1		258

By Section 11 of the Ordinances establishing a Park Department it is provided that "The Park Commission shall have the care of the trees in the public streets," and by Section 8 of the same Ordinance it is provided that "The superintendent shall perform all such services in relation to the trees in the public streets as may be required of him by the Board." Chapter 123 of the Statutes of 1885 provide that the officer appointed to have the care of the trees belonging to a city and his assistants, but no other person, may trim or lop off trees standing in streets, etc. This statute and ordinance have been very generally obeyed in Cambridge, so far as that portion of the tree which is above ground is concerned. But the opinion prevails that any person who has occasion to excavate in the street is under no restraint regarding the roots of the tree. It is the general custom, therefore, to cut tree roots indiscriminately, without conferring at all with the authorities who by ordinance have the care of the trees. The extent of the damage caused by this practice can be partially estimated from the fact that of the hundreds of trees now in a dying or dead condition, the cause in a majority of cases can be surely traced to a depleted root system. More trees are destroyed in this way in Cambridge than by any other cause.

There appears, therefore, to be a necessity for an additional ordinance relating to this matter, and I respectfully suggest the passage of an ordinance which shall require any person who has occasion to excavate around the roots of a public tree to notify the Park Commissioners before disturbing the roots.

The removal, this year, of many trees from Main street and Massachusetts avenue, notably the huge old elm at the corner of Norfolk street, is a reminder of the changes which are taking place in our streets and of the losses in street foliage which must result.

Probably more growing wood has been removed from the six square miles of Cambridge land during the past decade than from any equal city area in Massachusetts. This is to a considerable extent a matter of record, but it must be remembered that in the battle of the trees for life record is usually made of the dead only and not of the wounded. A generation ago the gravel-topped roads and open lawn spaces made almost ideal conditions for street-tree culture. Since then the equipments of a modern city have come upon us with such haste and force that the result has been most disastrous to the trees. The introduction of electricity for illumination and power; the increase of gas and water piping; the building of macadam and stone-block road surfaces, and of brick and mastic sidewalks; street-widenings and regradings; the multiplication of insect pests due to the banishment of our native birds; a dust and smoke-laden air; the increasing number of horses to gnaw and vehicles to scrape the trees,—these are modern urban conditions which conspire against the health and life of our shade trees, and which are no less sure in their results because their operations are often slow and secret. Probably Cambridge in these respects, with its limited area and rapidly increasing population, is one of the most marked examples in the Commonwealth of a sudden transition from semi-rural to urban conditions, and the consequent present uncongenial surroundings of trees whose earlier years were full of promise.

Tree-planting has been carried on the past year as far as money and time would allow, but a majority of this work has been an attempt to supply a second growth where old trees have been removed. Some planting, however, has been done upon new ground, the most interesting instance being Aberdeen avenue, where a double line of red oaks (*Quercus rubra*) extends the entire length of this broad avenue. Here the conditions for thrifty growth are more favorable than upon ordinary streets, but even here, tree-planting being but an afterthought and not an essential part of the original plan of the street, permanent obstacles in the construction of the street compelled the placing of the trees at irregular distances.

In this planting upon Aberdeen avenue more than the usual care was taken to secure good results. Pits were dug in the gravel and three cubic yards of selected fresh loam were allotted to each tree. The total cost for each tree thus planted, including the wire guard, was about $5. This is the nearest approach to thorough work in planting any considerable number of street-trees, so far made in Cambridge. Yet the inadequacy of this work may be understood when it is stated that in the French city of Paris, where prices for labor and material are much less than in this country, the cost of street-tree planting, according to the official figures of the Department of Public Works, not infrequently amounts to $40 or even $50 per tree. The Parisians, however, have learned to value street foliage and regard the planting of a tree intended to outlive a generation of men as a fact of sufficient dignity to justify the expense. As much care is exercised there by the municipal authorities in the planting of a street tree as is sometimes exercised here by private corporations in planting one of the huge and unsightly poles which support the electric wires above Cambridge thoroughfares.

It cannot be expected that ideal methods in street-tree planting can be attained at once in Cambridge. A hopeful consideration, however, is that in the new River Parkway there will be an opportunity to give the trees due consideration and thus furnish an illustration of what all street architecture should be. It is almost certain that for many years to come the park driveway along the river bank will be the only well-planted avenue in Cambridge. As these carefully selected trees grow in symmetry and increase in beauty, the conditions which guarantee their success will become very apparent. Unity in design, thoroughness in construction, and a continuous policy of administration are essentials in good streets, and in no part of the street are they more essential than in the shade trees. In the River Parkway, the drainage, lighting, and watering systems being all parts of the architect's original plan, they will not conflict with each other and will unite in no conspiracy against the life of a shade system. All these systems will be controlled and managed by one authority. So completely will the public interests prevail upon the River Parkway that not only will the private interests of abutting owners not be allowed to intrude upon the public reservation, but the abutting lands to a proper extent by building restrictions will be regulated in their use by considerations for the public welfare. In the government of the parkway, proper rules will be administered by an authority who will ever have in mind the plan and main purpose of the reservation, and who will be controlled by a regard for the trees sufficient to protect them from the habit of spoliation now so common elsewhere.

Upon the River Parkway each tree will have not less than twenty-two cubic yards of fresh loam wherein to grow. This is a condition of soil from which good results may be expected, but that it is far from being an extravagant amount in the opinion of experts is shown by the fact that in the Arnold Arboretum, where trees intended to grow singly and develop into specimens are planted, pits are dug and the original soil is replaced by a compost of loam and peat to the amount of seventy cubic yards for each tree.

The Year's Expenditures.

The expenses of the department for the year are shown in the following summary of the departmental accounts: —

Park Loans.

Amount appropriated Feb. 26, 1896	$260,063 00
Amount of Revenue	3,548 18
	$263,611 18

EXPENDED.

CAMBRIDGE FIELD.		
Lands	$15,064 70	
Shelter—Contractor	19,448 85	
Shelter—Plumbing	2,428 84	
Shelter—Architects' Fees	1,635 06	
Shelter—Furnishings and Fittings	1,147 90	
Shelter—Heating System	878 00	
Pay Roll	9,154 55	
Broken Stone	4,095 29	
Teaming Broken Stone	295 80	
Use of Steam Roller	184 17	
Amounts carried forward	$54,333 16	$263,611 18

Amounts brought forward	$54,333 16		$263,611 18
Teaming	3,640 71		
Filling	3,250 28		
Engineering Pay Roll	641 40		
Edgestone for Sand Courts	631 00		
Laying Edgestones for Sand Courts	70 80		
Paving Brick	545 63		
Laying Paving Brick	185 26		
Loam	450 08		
Laying Water-pipes	315 88		
Flag Staff and Vane	224 03		
Ensigns	22 40		
Hose and Fittings	200 88		
Fuel	196 27		
Lawn Seats	165 40		
Edgestone	125 34		
Lumber	120 11		
Printing and Advertising	87 40		
Stakes	73 90		
Telephone Service	65 41		
Blacksmithing	20 80		
Laying Drain-pipes	18 16		
Tools and Hardware	16 05		
Grass Seed	13 50		
Fixtures for Sports	12 50		
Sharpening Tools	11 85		
Shrubs	11 00		
Signs	7 50		
Carpentering	3 91		
Cement	2 30		
Mason Work	2 25	$65,465 16	
RIVER PARKWAY.			
Lands	$64,233 84		
Filling	20,966 31		
Pay Roll	5,710 31		
Loam	5,012 84		
Engineering Pay Roll	1,680 40		
Counsel Fees in Land Cases	1,202 78		
Land Experts' Fees	1,125 00		
Boylston Street Drainage System, three-fifths of cost	890 11		
Amounts carried forward	$100,821 59	$65,465 16	$263,611 18

Amounts brought forward .	$100,821 59	$65,465 16	$263,611 18
Teaming	699 22		
Fence on Section G . . .	496 36		
Insurance	360 00		
Removing Wreck and Piles .	325 00		
Court Stenographer . . .	236 25		
Printing	65 10		
Examination of Titles . .	63 55		
Carpentering	45 43		
Boats and Rafts	36 58		
Lumber	32 09		
Surveying, Extra Service .	25 00		
Stone Bounds	24 00		
Chip Stone	15 00		
Carriage Hire	12 00		
Stove and setting up . . .	6 20		
Advertising	5 66		
Fuel	3 15		
Registering Deed	1 45		
Serving Notices	1 00		
		$103,274 63	
THE FRONT.			
Sea Wall	$15,357 19		
Pay Roll	5,823 98		
Filling	5,692 39		
Filling from the River . .	2,471 36		
Ballast for Sea Wall . . .	2,263 82		
Teaming	857 13		
Lumber	242 13		
Engineering Pay Roll . .	234 03		
Printing	40 08		
Laying Water Pipes . . .	29 94		
Advertising	15 55		
Coal	12 00		
Tools and Hardware . . .	5 25		
Carpentering	4 40		
Registering License and Plan	1 65		
		$33,050 90	
BROADWAY PARK.			
Pay Roll	$2,684 89		
Loam	2,327 31		
Paving Brick	941 25		
Amounts carried forward .	$5,953 45	$201,790 69	$263,611 18

Amounts brought forward	$5,953 45	$201,790 69	$263,611 18
BROADWAY PARK — concluded:			
Laying Paving Brick	337 03		
Drain-pipes, Material and Laying	222 66		
Lawn Seats	188 00		
Engineering Pay Roll	151 95		
Sod	139 50		
Broken Stone	108 37		
Repairing Iron Fence	102 00		
Iron Fence, New	90 00		
Teaming	78 38		
Architects' Plans, Arbor	75 00		
Stakes	37 80		
Stone-cutting	15 75		
Labor on Flag Staff	13 62		
Grass Seed	13 50		
Carpentering	11 41		
Water-pipes, Material and Laying	10 41		
Lumber	7 07		
Tools and Hardware	5 52		
Advertising	4 28		
Shrubs	4 00	$7,569 70	
GENERAL ACCOUNT.			
General Superintendent's Salary	$2,000 00		
Landscape Architects' Fees	1,302 93		
Tools and Hardware	387 97		
Board of Horse, Horse-hire, etc.	387 75		
Engineering Supplies	296 20		
Car Tickets for Engineers	225 00		
Fertilizer (ashes)	225 00		
Pay Roll	205 57		
Printing and Binding	146 10		
Sign Boards and Signs	144 00		
Rent	140 00		
Car Tickets	100 00		
Stakes	68 00		
Engineering Pay Roll	58 19		
Lanterns	56 00		
Amounts carried forward	$5,742 71	$209,360 39	$263,611 18

Amounts brought forward .	$5,742 71	$209,360 39	$263,611 18
GENERAL ACCOUNT — concluded:			
Boats and Rafts	37 78		
Entertaining Met. Park Commissioners	21 35		
Rubber Goods	21 25		
Advertising for Loam . .	18 13		
Photographic Material . .	5 65		
Subscription to "Garden and Forest"	4 00		
Grass Seed	15 05		
Express	3 60		
		$5,869 52	
OFFICE EXPENSES.			
Salary of Bookkeeper . .	780 00		
Salary of Stenographer . .	624 00		
Stationery and Printing . .	267 72		
Telephone Service	180 50		
Office Furniture	208 45		
Map	8 00		
Books	5 00		
Marking Stamps	16 50		
Postage Stamps	76 00		
Express	1 60		
		$2,167 77	
RINDGE FIELD.			
Pay Roll	$391 16		
Teaming	15 00		
Engineering Pay Roll . .	14 22		
		$420 38	
NURSERY.			
Trees	$288 75		
Pay Roll	247 33		
Shrubs	106 00		
Express	60		
		$642 68	
			$218,460 74
Balance unexpended			$45,150 44

Park Maintenance.

Appropriation Feb. 26, 1896			$9,000 00
EXPENDED.			
Pay Roll		$6,182 24	
Wire Netting and Zinc		686 73	
Teaming		281 51	
Amounts carried forward		$7,150 48	$9,000 00

Amounts brought forward	$7,150 48	$9,000 00
Loam	272 95	
Fuel	218 40	
Plants	165 00	
Horse	150 00	
Board of Horse, etc.	146 65	
Manure	129 92	
Bulbs	97 30	
Painting Fence	83 00	
Repairs on Wagon	81 68	
Tools and Hardware	80 92	
Lawn Mowers	78 48	
Bicycle	65 75	
Poles	55 00	
Work on Flag Staffs and Flags	54 54	
Trees	42 50	
Removing Posts from Winthrop Square	30 00	
Painting Letters on Monument	24 12	
Grass Seed	22 40	
Ash Barrels	16 50	
Blacksmithing	15 20	
Signs	12 15	
Bedding Plants	5 00	
Flags	1 75	
		$8,999 69
Balance unexpended		$ 31

Conclusion.

With this report my services as General Superintendent cease, my resignation having already been presented and accepted by your Board. I desire to most heartily thank the members of the Board for their uniformly kind treatment; for the large liberty in which I have been permitted to work, and for the attention which has been accorded my suggestions and recommendations. I will venture to add, in conclusion, that it will be my sincere desire in the future to see the work of park development in Cambridge go on, uninterruptedly, to a most successful end. In the future days of great accomplishment those who worked at the beginning will find in the memory of that work much satisfaction.

Respectfully submitted,

GEORGE R. COOK,
General Superintendent of Parks.

REPORT OF THE LANDSCAPE ARCHITECTS.

HENRY D. YERXA, Esq.,
Chairman of the Park Commission, Cambridge, Mass.: —

DEAR SIR: We beg leave to make the following report, covering the year which is now closing: —

For Rindge Field and the public ground on the river front of East Cambridge no designs other than preliminary sketches have as yet been prepared. For Broadway Square and Cambridge Field general plans were made in 1894 and published with the Commission's report for that year. Occasional visits for reviewing the construction and planting of these grounds have been called for during the past year, while a few minor changes in the original plans have been made on our recommendation or with our approval.

For the children's ground in the remodelled Broadway Square a vine-clad arbor has been designed. Whenever a permanent structure is built in this Square toilet-rooms should be provided in addition to the proposed arbor.

The central building or Field House at Cambridge Field, now almost completed, will, we believe, satisfactorily fulfil the requirements which were outlined in our annual report of last year. It is the "appropriately substantial and architectural structure" which we argued that it ought to be as the keystone of the whole design of the Field.

The House and Field being now finished, save for the planting, which will greatly improve its appearance, the regulation of the use of both will doubtless call for close attention, and perhaps for some experimenting. Here is an interesting problem which Superintendent Cook has carefully studied. Towards its solution we can contribute only those considerations which guided us in preparing the general plan of the Field. In shaping this plan we assumed that the city desired to provide a real playground for large numbers of children, girls, boys, and young men, and not a place for exhibition games at which the many are mere spectators, while eighteen or twenty-two youths perform as players of base-ball or foot-ball. To return good dividends on its cost the Field ought to be thickly occupied daily by clubs, groups, and individuals, all taking part in simple exercise of one sort or another, from competitive walking, running, and jumping to quoits, marbles, and the like. As city children and young people are often ignorant of how to play, it might be well to employ a teacher for a time, as has been successfully done in some places. Every effort should be made, if necessary, to prevent the conversion of the Field into a place for shows and such competitive games as require the roping off of large areas for the use of but few players. If the city desires to make Cambridge Field a place for the orderly gathering of crowds of spectators at exciting shows or exhibitions, the plan of the Field ought to be radically changed. For the fulfilment of the more useful purpose for which this public ground was first intended, we believe the Field as constructed will be found well adapted.

For the Charles River Parkway above Boylston street, detailed plans have been prepared during the year, while the rapid work of construction in accordance with these plans has been watched with interest. Unfortunately, the position, width, and elevation of the future Boylston-street bridge cannot be accurately foretold, and the grades of the approaches to the bridge will probably have to be changed when the new bridge is constructed. The round, view-commanding stone bastions suggested by the adopted plan can, of course, be increased in height, if necessary. With this exception, so much of the parkway as it is proposed should be constructed at this time will be built to finished grades, as well as permanent lines. From Boylston street to Murray street, sidewalk, roadway, and promenade may all be built and an additional waterside walk beside. From Murray street to Bath street there is room on the existing marsh for only the sidewalk and the roadway, and from Bath street to Mt. Auburn street there is room for the sidewalk only, but here the whole triangle formerly owned by the Casino will afford an ample and agreeable public view-point. The afternoon prospect from the great willows across the Longfellow marshes to the tower of Mt. Auburn is doubtless the most peacefully beautiful landscape Cambridge is ever likely to possess.

The unfortunately piecemeal nature of the work thus described is illustrated by the continuous lines on the accompanying plan, while the dashed lines indicate the proposed completed work. It goes without saying that we, as professional men, dislike extremely to see a good general plan executed in this fragmentary manner, but in the peculiar circumstances attending this case, we believe the course you are pursuing is fully warranted.

Charles river, unfortunately for Cambridge, Brighton, Newton, and Watertown, is still a tidal stream, the salt waters of which not infrequently overflow the bordering marshes, as is illustrated in the uppermost of the accompanying typical cross-sections. Between Cottage Farm and Watertown hundreds of acres of land are subject to this occasional flooding. So long as the tide is permitted to invade the heart of the metropolis in this manner, the only way to carry out the complete scheme of the Riverside Parkway between Boylston street and Mt. Auburn would be to build continuous retaining sea-walls, such as are illustrated in the second section. Such walls are very expensive, and if a few hundred feet of wall built across the stream near Cottage Farm will do away with the need of ten miles of wall stretching up to Watertown and back again, the short wall or dam is evidently well worth waiting for. Particularly is this the case when the healthfulness, usefulness, and beauty of the proposed ponded river as compared with a walled tidal river is taken into account. Above Cottage Farm the walled river would be a mere canal. Boating on it, even at high water, would be a prosaic pastime, resembling riding through a walled railroad cut; while at low water, when ten or more feet of slime would be exposed, the appearance of the stream, both from its banks and from its surface, would be still less attractive. On the other hand, the green-banked or sand-beached river illustrated by the third section would be fully as pleasing in appearance and as useful for boating and skating as the natural fresh-water stream above Watertown. There can be no question as to which mode of treatment will most benefit Cambridge and the surrounding districts. Nevertheless, so long as definite choice is postponed, it seems best to confine work along the river to such lines and grades as may be easily adapted to either kind of shore, whenever a decision shall be reached. Accordingly it is this partial construction, illustrated by the accompanying plan and the fourth section, which is now going forward between Boylston street and Mt. Auburn street.

One portion of the long River Parkway has already been brought to grade; namely, the broad, straight, and sea-walled "esplanade" fronting on the Basin near Harvard bridge and constructed by the Cambridge Embankment Company. Between this graded section and the section under construction above Boylston street we are informed that the Park Commission now controls all the river bank excepting about 985 feet between River street and Western avenue. About 225 feet of this unacquired river bank is, however, controlled by the city of Cambridge. The remainder of this frontage is the property of the famous Riverside Press and the Cambridge Electric Light Company.

Early in the present year two alternative schemes for carrying the River Parkway past these important industrial establishments on the landward side thereof were examined by us with interest and care. The original plan had been to keep the parkway adjacent to the water throughout its length, and study of these suggested alternatives only confirmed us in the opinion that the original plan was still the best plan. From the point of view of those who will use the parkway for walking, cycling, or driving, there can be no question as to the superior pleasantness of the continuous riverside route, with its sunny views up and down the stream and across to the opposite shore, now controlled by the Metropolitan Park Commission. The alternative suggested involved separation from the river for a distance of 1,000 or more feet, slanting crossings of River street and Western avenue, a coalescence of the parkway with the traffic road, known as Blackstone street, throughout its length, and instead of the openness of the river, brick and wooden industrial buildings crowding and overshadowing the way, not on one side only, but on both sides. Those who will use the ponded river of the future for boating and skating, and those who will travel by the Metropolitan Commission's parkway, would, if they had the chance, speak equally decidedly in favor of the continuous public river bank proposed by the original plan. The Riverside Parkway, with its promenade and driveway and its rows of lamps and trees, will look reasonably well, at least when seen from the stream or the opposite shore; moreover, such buildings as abut upon it will naturally tend to face it handsomely. The suggested alternative parkway routes would, on the other hand, leave the Cambridge shore between the streets above mentioned without any screen of trees and in possession of private owners who would have no incentive to improve the appearance of their buildings as seen from the water and the other shore.

Assuming for a moment that the River Parkway is to be really a river parkway all the way from West Boston bridge to Cambridge Hospital, there remain two connections which need to be secured in order to make the parkway as useful as possible.

The long chain of the Boston parks and parkways now extends not only to Franklin Park, but also to Bellevue Hill, West Roxbury, where connection is made with lands acquired by the Metropolitan Park Commission, which will ultimately connect the Boston parks with the great Blue Hills Reservation. Cambridge wheelmen and carriage owners already enjoy the Boston parkways, but when the Charles River Parkway shall be built, a connection between the two park systems more convenient and direct than the present Cottage Farm bridge will certainly be desirable. The present bridge connects with but a narrow way leading to the southward, whereas, if the bridge can be moved down stream to the actual mouth of the river at the head of the Basin, and then if its southern end can be slanted eastward, direct connection will be made with an extension of the broad Audubon road, by which the Boston parks and Roxbury and all southern sections will be reached comfortably; while a more direct route will, at the same time, be secured between all southern and western Cambridge, and the Back Bay and South End, west of Massachusetts avenue. In other words, the proposed Charlesmouth Bridge will remedy the three principal faults of the present Cottage Farm bridge, the right angle at the Charles River Parkway and Brookline street; the right angle at the junction of the bridge with Commonwealth avenue; and the lack of any adequate connection with the great southern suburbs. We make no mention of the steam-railroad crossing, because that must be overcome wherever the bridge is placed. That the proposed new bridge will help (as the present bridge cannot) all that section of Cambridge which lies between Harvard bridge and the present Cottage Farm bridge, is only an additional argument in its favor.

On the northern side of Boston and Cambridge, the varied Middlesex Fells Reservation corresponds, in direction and distance from the State House, with Franklin Park, the Arboretum, and Bellevue Hill; but, while these public domains are now agreeably accessible, the Fells remain, on the other hand, quite hard to reach. It so happens that the Charles River Parkway of the Cambridge and Metropolitan Park Commissions, is the first and most expensive link in the continuous chain of parkways which ought to eventually connect the broad and impressive central water basin with the Fells, much as the existing parkways connect the basin with Franklin Park. The first or Muddy-river section of the existing southern parkway system follows a ponded stream from which the tide has been successfully excluded by a dam. The first or Charles-river section of the proposed northern parkway system will follow a larger but similarly transformed stream, as soon as a dam can be secured at the site proposed for Charlesmouth bridge, or at the lower end of the basin near Craigie's bridge. From the Charles River Parkway at the Cambridge Hospital or Gerry's Landing, to the existing public domain at Fresh pond, it seems to us that Cambridge ought herself to secure a more agreeable way than any which now exists, while the Fells Reservation is so interesting that Cambridge would do well to urge that it be made agreeably accessible from Fresh pond.

Respectfully submitted,

OLMSTED, OLMSTED & ELIOT.

BROOKLINE, MASS., November 2, 1896.

REPORT OF THE CITY ENGINEER.

City of Cambridge.
Office of City Engineer,
City Hall, Dec. 1, 1896.

Henry D. Yerxa, Esq.,
President Park Commission: —

Dear Sir: The following is a brief statement of the engineering operations connected with the Park Department for the year ending December 1, 1896:

The work of surveying and locating the park lines on the river front has been continued the past season as opportunity has offered. The confirmation of the harbor line on the river and difficulty in locating the taking line from it, has rendered the work of establishing this line with accuracy a slow process. Surveys and descriptions of the major number of estates taken for park purposes have been made for settlement with owners. A party has been employed all the time which could be spared from other matters upon this work. A considerable progress has been made in filling the lands taken at the Casino grounds and near Murray street. Surveys and estimates were made early in the season for a method of completing the river shore from the Cambridge Hospital grounds to Boylston street, but owing to the uncertainty as regards the future treatment of this river shore, especially relating to the erection of the proposed dam across Charles river below this point, no final decision has been reached, or plan adopted, the filling being done on a tentative plan only as regards the treatment of the river shore. It seems to me, now that the widening of Boylston street has been carried out, that the character of the Boylston-street bridge, its abutments and approaches, should be determined before very much more can be done in finishing the parkway at this point.

Much time has been given to the setting out of the work at Cambridge Field for grading, paths, construction of the shelter, playgrounds, and miscellaneous work. Two assistants have been almost constantly employed there.

The sea-wall at the "Front," referred to in my last report, was completed by the Contractor, Mr. Thomas A. Rowe, in December, 1895. The total length of the wall constructed is 1,735 lineal feet. The total cost, including inspection, advertising, and printing, is $54,658.42.

Very satisfactory progress has been made in filling in the land acquired by the Park Commission and enclosed by this wall. The ballast required behind the wall has been selected from the coarse quality of filling as it has been obtained from time to time. Acting under licenses obtained from the Harbor and Land Commissioners, and also from the Secretary of War, the deeper portions of the foundation of the wall have been protected with stone ballast placed on the outer or water side of the wall. This has been done under a contract with Mr. Hugh Farrell, at a total cost of $3,881.88. With the completion of the filling of the land and grading of Commercial avenue, the question of the bridge across the canal and the completion of the street to Bridge street will require early attention.

Four assistants have been employed regularly upon work connected with the Park Department, and others temporarily as the work required.

The total expenditure for park engineering for the year has been $3,489.42.

Respectfully submitted,

L. M. HASTINGS,
City Engineer.

VALEDICTORY ADDRESS

OF

HON. WILLIAM A. BANCROFT

MAYOR

DELIVERED BEFORE THE CITY COUNCIL

December 29, 1896

GENTLEMEN OF THE CITY COUNCIL: —

For many reasons it is fitting that one who is about to withdraw from the duties and responsibilities of an administrative office should make some report, no matter how brief, of the official doings to which he has given his attention. By the new charter of Cambridge which has been in operation for the past five years, "The executive powers of said city and all the executive powers (formerly) vested in the mayor and in the board of aldermen, and in the surveyors of highways,— . . . are vested in the mayor, to be exercised through the several officers and boards of the city in their respective departments, under his general supervision and control." What has been done here of late, therefore, it is pertinent for the Mayor to recount at this time.

During the past four years the City of Cambridge has moved forward. Its municipal policy has been one both of economy and of progress; — a policy which, so far as can be judged, has been almost universally welcomed by the people of the city, and which it is clear has accompanied, even if it has not occasioned, the expansion of the community.

The growth of the community has made necessary a larger provision, more complete in detail, in almost all municipal departments, but especially in the Water, Street, Public Buildings and Sewer Departments, while an enlightened conception of the concerns of municipal government has led to the creation of a new department — that of Parks,—which has been, and will be of no small pecuniary cost, but which it is expected will confer a benefit upon the city and its inhabitants well worth whatever has been, and what ought reasonably to be, expended thereon.

For this, and for other extraordinary purposes an increase of $1,064,611.77 in the net city debt has been incurred. This increase in the debt has been occasioned in part indirectly by work imposed by the Commonwealth and by the County, and in part, besides the provision for parks, by public buildings, and by the construction of streets; all of which a few years ago it would generally have been thought unnecessary to undertake. Had we not the debt, we should not have the resources that it represents. These resources, it should be borne clearly in mind, are outside of the provision which has been made for the added needs of a growing municipality. So far as the expenditure of money is concerned it is believed that at no period of the city's history, when the magnitude of the undertakings is considered, has there been a larger return for the same expenditures. The well-established principle of paying for current expenses with current revenue has been rigidly observed, but "permanent improvements in which others, also, are to share," have been undertaken as never before.

The debt thereby incurred represents, so far as the proceeds of loans have been expended, outside of the Water Debt, which will be treated in another place, $379,679.25 expended for park takings; $252,724.16 expended for construction of parks; $292,409.88 expended for ten stone or brick public buildings and land therefor, including a city stable, three schoolhouses, four engine houses, (one a brick double house), an addition to the public library, and $43,911.45 for a lot of land for a new Latin schoolhouse; $25,538.65 expended for a beautiful and substantial brick building to be used as a "shelter" on Cambridge Field, (a schoolhouse and a brick addition to the municipal building on Fourth Street have been built at a cost of $32,023.22 out of the tax levy); $251,944.40 for land takings, and the construction of new streets or the widening of old, and in some places the reconstruction thereof, including Mount Auburn Street, Huron Avenue, Boylston Street, Harvard Square, Harvard Street, (now Massachusetts Avenue, between Harvard and Quincy Squares), Front Street, Main Street, North Avenue, Commercial Avenue, Cushing Street, Davenport Street, Fairmont Avenue, Norton Street, Wyeth Street, Charles Street, Vine Street, McDonald Street, Seventh Street, Dunster Street, Elliot Street and First Street; $225,001.40 for trunk sewers, including $103,468.34 for connections with the Metropolitan Sewer, and $6,868.68 for Clay Lands.

Besides the sums expended out of the current revenue to make provision for the growing needs of the city, there have been expended also out of the same revenue during the past few years for Metropolitan Sewer purposes, $131,542.82; for County purposes above the average rate of increase for the ten years previous to 1893, $20,000.00 (estimated), making altogether $150,000.00, which would otherwise have been available for municipal expenditures, such as the erection of new schoolhouses, or the construction of new streets. This diversion of revenue for these new purposes should be borne in mind in making comparisons between the expenditures of the past four years and those of other periods. Moreover during the last decade there have been created besides the park department, other departments which have involved no inconsiderable increase in the current expenditure.

During the year 1896 the expense of these was as follows: —

Ambulance Department	$2,452 39
Civil Service Department	249 97
Inspection of Milk and Vinegar, Provisions, etc.,	2,279 84
Inspection of Wires	11,999 74
Plumbers' Examiners	101 05
Total	$17,082 99

From this there ought to be deducted, say $2,000 for Inspection of Wires, formerly charged to the Fire Department, leaving an annual increase for these new departments of $15,000. The increase in the expenditure of the old departments, made necessary by the growth of the city, has also been large, as shown by the following:

	1886.	1896.
Cemetery Department	$15,727 97	$20,000 00
City Clerk and Election Expenses . .	8,465 46	19,571 03
Engineering Department	7,050 74	11,401 79
Executive Department	2,500 00	5,414 08
Fire Department	58,375 98	85,467 88
Health Department	2,788 70	16,999 55
Lamp Department	31,578 71	67,325 31
Law Department	2,000 00	5,197 44
Overseers of the Poor Department . .	62,506 86	105,379 81
Park Department (Shade Trees and Public Grounds)	4,450 05	8,999 69
Police Department	80,404 44	110,111 14
Public Library	6,893 47	18,354 06
City Building (care and repairs) . .	11,217 88	25,343 10
Schoolhouses (care and repairs) . .	30,932 58	58,537 62
School Department (salaries) . . .	167,574 42	249,639 51
School Department (text books and supplies)	10,680 52	18,437 22
State Aid	13,137 00	23,209 03
Amounts carried forward . . .	$516,284 78	$849,388 26

	1886.	1896.
Amounts brought forward . . .	$516,284 78	$849,388 26
Street Department:—		
Bridges	2,468 75	4,266 34
Cleaning Collection of Ashes Maintenance	84,266 42	112,444 10
Paving Edgestones, etc.	28,520 94	39,999 12
Watering	21,577 48	28,481 70
Total	$653,118 37	$1,034,579 52
Increase	$381,461 15	

The total increase in current annual expenditures in ten years has been $409,320.68.

The valuation in 1886 was	$59,445,670.
The valuation in 1896 was	83,750,095.
Increase	$24,304,425.

This increase at the current rate of taxation ($15.10), which is substantially the same as in 1886 (only ten cents on a thousand dollars greater) yields a revenue of but $367,000.00 towards meeting the increased current expenditure of $409,320.68. The balance has been met from departmental revenues.

There has also been in the past four years an increase of $891,100.00 in the net water debt. As is well-known, this has been occasioned by the provision for an additional water supply, the reasons for which have been given in the reports of the Water Board and which I had the honor to sum up in an address to the City Council at the beginning of the year 1895.

There have been taken in the City of Waltham, and in the towns of Lexington and Lincoln for storage basins, 1000 acres at an estimated cost of $160,000.00; in the construction of these basins, including dams, strippings, excavations, roads, etc., there have been expended $457,000.00.

There have been taken in the Town of Belmont for a high-service reservoir 12 acres, at a cost of $37,784.00. There have been expended for the construction of this reservoir $240,000.00.

For the cost and laying of new pipes, made necessary by this new high-service reservoir there have been expended $195,058.00.

For alterations in the power-house and boiler-house there have been expended $25,500.00 For the purchase of a new 20,000,000 gallon pump and two boilers therefor, there have been expended $94,700.00. For the renewal of old distributing pipes there have been expended $129,800.00 ($100,000.00 of this amount was taken from the surplus receipts). In improvements around Fresh Pond, for its purification as a reservoir, for the development of the Fresh Pond Park, and for the construction of two steel bridges there have been expended $260,000—($139,000 of this amount was taken from the surplus receipts).

In the extension of mains and for laying mains in new streets there have been expended $95,000.00.

These expenditures represent the increase in the Water debt.

The increase in the net debt of the City, including the water debt, has provided, then, park lands of 132.8 acres, consisting of—

The "Front"	8.78	acres.
The Cambridge Field	12.87	"
The Rindge Field	12.00	"
The River Parkway	99.15	"

has constructed Cambridge Field, and reconstructed the Broadway Park; has done work of construction on the river front between the Hospital Grounds and the Cambridge Casino property, at College Wharf from the gashouse at the foot of Ash Street to Boylston Street and at Captain's Island; has filled a large area at "The Front"; has built a sea-wall at "The Front" 1,759 feet long and 4.6 feet wide at the top, capped with a coping of dressed granite 4 feet wide; has nearly completed storage-reservoirs for an additional water supply of two and a half billion gallons capacity — a high-service reservoir of 44 million gallons capacity: has laid 16 miles of new distributing 4 to 40 inch mains; has renewed 13 miles of 4 to 24 inch pipe, providing for an estimated daily yield in our water supply of thirteen million gallons, an increase of about six million gallons, and has provided for the construction of two steel bridges on Huron Ave.

It has also provided for the erection of three school-houses, containing 30 rooms and 2 halls; for the erection of 4 engine houses; for an addition to the public library; for a city stable and land therefore; for a park shelter, and for a suitable lot of land for a new Latin schoolhouse. It has provided for the construction of streets and sewers in the clay-lands, in large part preventing the further extension of clay pits upon desirable building lands, and causing an increase in land values.

It has provided for the taking and building, or the building of 3.643 miles of streets of average width of 58.33 feet.

It has provided for the construction of nearly five miles of trunk sewers; for the connection of the Cambridge sewer system with the Metropolitan system and for sewers in connection with the city of Somerville in the Tannery Brook district. Without incurring debt these municipal resources could not have been had.

Out of the current revenue there have been met the Metropolitan Sewer assessment, and the increase in the County Tax.

To these burdens from which former years were free, the expense of the new departments hereinbefore enumerated, and the increased expense of other departments due to their greatly extended operations, have been added.

This increased expense has appeared markedly in the Departments of City Clerk and Election Expenses; in the Engineering Department; the Executive Department; in the Health Department; in the Lamp Department; in the Law Department; in the Public Library; in City Buildings (care and repairs); in Schoolhouses (care and repairs);

in School Department (salaries); in School Department (text-books and supplies); in State Aid, and in Bridges.

The imposition of the Metropolitan Sewer tax, the increase in the county tax, and the marked expenses involved in the expansion of the city departments just named, accounts for the disposition of a very large revenue which could have been used under former conditions for the erection of buildings and the construction of streets, and explains why for most of these that have been provided in the past four years debt has been incurred.

During the past four years there have been paid in reduction of bonded indebtedness $1,326,000.00. Of this amount, $702,000 was on account of the "city" debt, and $604,000 on account of the water debt. The total net debt is now $4,964,584.74, of which $2,731,331.76 is "city" debt, and $2,233,252.98 is water debt. There is no floating debt.

The city has now a borrowing capacity of $327,166.47, besides $100,000 for Parks and $50,000 for Clay Lands.

Its credit is good, and, indeed, it has received the highest premiums in its history upon its four per cent. bonds.

The tax rate has been: in 1893, $16.40; in 1894, $15.80; in 1895, $15.70; in 1896, $15.10.

In the *Street Department*, besides the taking of land for, and the construction of new streets, met by the proceeds of loans, much progress has been made in the construction of sidewalks and the surfacing of streets out of the current revenue. There have been expended for—

Curbstones, brick or granolithic sidewalks and flagging crossings	$124,957 47
For granite-block paving	57,489 56
For macadamizing and gravelling . .	190,096 79

This includes	49,270	yds. of brick or granolithic sidewalk.
	16,925	running feet of flagging crossings.
	45,306	square yards of granite paving.
	200,000	square yards of macadam.

Savings have been effected in the collection of ashes, and in the cleaning of streets by the adoption of more economical methods. The practice of cleaning daily certain streets was begun in 1894, and last year there were cleaned daily 15.85 miles of streets, of an average wide of sixty-six feet. Three general cleanings have been made annually, paved streets have been cleaned fortnightly and many side streets weekly. Street watering has been begun earlier and continued later, and has been extended to all the streets. The system of voluntary contributions, to meet in part the expense of watering streets, with its inconvenience and inequalities, has been abolished, and the more certain and equitable method of assessment adopted.

Provision for a new city stable and city yard, abutting on the Fitchburg Railroad in West Cambridge, has been made; an additional steam-roller has been purchased; an additional stone-crushing plant also has been purchased; provision has been made for the purchase of a gravel bank of 32 acres in the town of Acton abutting on the Fitchburg Railroad, so that street material can be brought easily and cheaply therefrom to Cambridge.

In the *Department of Public Buildings* there has been much expansion. Accommodations for the Schools, for the Library, for the Fire Department, and for the Police Department have been provided adequately. A new rifle-range, one of the best in the State, with 200, 500, and 600 yards targets, has been constructed on land leased for ten years in the town of Lexington, at an expense of $4,495.61. Greatly needed sanitary arrangements, long-deferred, have been made in schoolhouses, for which $17,964.48 have been expended. In the Almshouse a much more suitable arrangement of space, conducive to the comfort and safety of the inmates, has been effected, and in the office of the Overseers of the Poor, a much-needed vault for valuable records has been constructed.

For the *Department of Inspection of Buildings*, fire limits have been adopted upon the main thoroughfares and in the thickly-settled portions of the city, and the building ordinance has been amended as experience has suggested. Plumbing Inspection has been added to this department.

In the *Cemetery Department* a new gateway of beautifull design and an appropriate iron fence have been constructed; a new Soldiers' and Sailors' Lot has been provided; the grounds have been laid out, necessitating the removal of the "Winchester Mansion," so called, and utilizing all the remaining available land for burial purposes.

In the *Fire Department*, besides the provision for the new buildings, there have been purchased two new steamers, a Hayes' Truck, and a chemical-engine. Thorough repairs have been made upon four engines. To man the new apparatus there have been added to the department 14 permanent men, 12 call-men, and 9 horses.

To the *Police Force* there has been an addition of five men and an extension in the signal-system of 20 signal-boxes and office apparatus in District 1.

Especial attention has been given to the administration of the Police and Fire Departments. In the Police Department monthly inspections and drills have been held; men have been required to wear uniforms alike in pattern, and to keep them neat and well-fitting. A rigid accountability under the rules established for both departments has been insisted upon.

The work of the Fire Department has been conspicuously praiseworthy: while the efficiency of the Police Force has been shown by raids made upon illegal liquor-sellers and gamblers, by the maintenance of the public order on occasions when the streets of the city were crowded with unusual throngs, and in other ways. At neither the fiftieth anniversary of the city or on the day of the funeral of the late Governor Russell was assistance asked of other cities. The police-work of Cambridge has been done by Cambridge policemen.

The *Engineering Department* has furnished plans for the extension of the water works; for the park system; for two steel bridges; for street improvements; has made block plans of the city for the Assessors' Department; has made a new map of the city, and has done other work of an extraordinary character incidental to the rapid expansion of the city.

The *Health Department* has made increased provision for inspection, now employing eight persons in place of four persons four years ago; has provided for the collection of clothing, in its own vehicles, and the disinfecting thereof; has attended to the public sanitaries, of which four have been furnished in the city; has provided for the care of infectious diseases at the Cambridge Hospital, and has, in addition, provided for a daily medical inspection of the public schools and of St. Mary's Parochial School, employing for this purpose seven physicians. The Health Department has also appointed a bacteriologist to the department to make all the examinations that pertain to such officials. The fitness of children to return to school after having had certain infectious diseases is certified by the medical inspector of the department. This certification embraces all children attending the public schools, the two parochial schools, and the three private schools.

The *Lamp Department* has increased the number of arc lights from 437 in 1892 to 490 in 1896, and of incandescents during the same period from 114 to 298. A new contract has been made showing a reduction in price of arcs from $115.00 to $100.00 a light.

The addition to the *Public Library*, and the increased appropriation have enabled this important department of municipal service to extend its usefulness in a marked degree.

In the *School Department* the number of teachers has increased from 284 in 1892 to 337 in 1896. The number of pupils during the same period from 11,511 to 12,888. Besides the new schoolhouses that have been built, the lot of land purchased of Mr. Rindge in the rear of the English High School awaits the erection of a new Latin School building, for which plans have been accepted and specifications drawn.

The *Department of the Inspection of Milk and Vinegar* has extended its inspection to butter and ice. Samples of milk are now collected on six days in the week instead of on three, and have reached nearly 3000 annually. This department now has a microscope and the means to do some bacteriological work.

The *Department of Inspection of Provisions, etc.*, has given its attention chiefly to the inspection of animals, although meat at slaughter-houses is inspected. This department has now the power of quarantine, formerly possessed by the Board of Health, and by its exercise and in other ways the number of cases of glanders and farcy has been reduced greatly. This office and the office of *City Veterinary* which has also been established, are held by the same person. A saving has been affected in the expense of horse medicines. They are now bought and distributed by the veterinary, instead of by the departments.

In 1893 action was taken which made possible the removal of the street railway tracks from Brattle Street to Mt. Auburn Street, and the reconstruction of the roadway in both streets. The advantages of this change are now, it is believed, universally recognized. Street railway tracks have also been removed from Craigie Street, Kirkland Street, Columbia Street, Third Street and Webster Avenue, and the roadways in all the streets from which tracks were removed have been rebuilt at the expense of the West End Street Railway Company.

The extension and completion of Huron Avenue from Massachusetts Avenue across Concord Avenue and around Fresh Pond to Concord Avenue again; the widening of Harvard Street (now Massachusetts Avenue) between Harvard and Quincy Squares; the widening of Boylston and Eliot Streets and Harvard Square; the construction of First Street, and the laying out of Commercial Avenue, cannot fail to assist in the development of the city.

Much attention has been given to plans for *New Bridges*. Legislation has been obtained, and the obvious needs of the city have been clearly pointed out.

In the *Department of Overseers of the Poor* depressed conditions following 1893 made extraordinary expenses. In connection with this depression, work was provided for hundreds of unemployed persons in the sewer and water departments during the winters of 1894 and 1895. To the efforts of the city at this time were added the generous offices of private charity. In the several departments which employ labor the extraordinary undertakings of the city during the past four years have given work to Cambridge laborers in abundance greater than ever before.

Private enterprise during the four years has not been lacking, as the increase in the city's valuation of nearly $10,000,000 shows, although it has been a time of depressed financial conditions throughout the country. Eighteen hundred and six new buildings have been erected, some of them devoted to the most extensive manufacturing operations.

The largest part of the lands in Ward Four, belonging to the Charles River Embankment Company, have been filled from the river-bed; buildings in which the public have an interest, the most conspicuous of which is the Young Men's Christian Association's new building, have been erected; general good order, due largely to the now well-established policy of the city, which has been thoroughly enforced, and to the efficiency of the police force, has prevailed.

The fiftieth anniversary of the city's incorporation was observed in a most suitable manner. The observances included, on the first day, exercises in the public schools, a public meeting in Sanders Theatre, where Professor John Fiske delivered the oration, and the Reverend Doctor Alexander McKenzie an address; on the second day a procession of great magnitude and variety, sports and games, exercises on the Common for the school children, the planting of a scion of the Washington Elm, a banquet to the city's guests, fireworks and band concerts in the evening, as well as a reception at the City Hall, to which five thousand invitations were issued, and yet, by reason of private subscription, the entire expense to the city was but $5,000.00.

The provisions of the Civil Service Law have been scrupulously observed, and none the less scrupulously because they have seemed to me to be of great value, not only in promoting efficiency but in abolishing the feverish importunities of clamorous office-seekers with all the evils attendant thereon.

Under the rules, in the Police, Fire and Street Departments, two veterans have been appointed to office, and three, already in the departments, have been promoted. A large number of laborers, who are veterans, have been employed under the rules, and I have appointed twelve veterans, outside of the classified service, janitors of schoolhouses.

I shall be pardoned at this time, if never before, in alluding to the harmonious relations which have existed during the past four years between the Executive and the Legislative Branches of our City Government. Every recommendation made by the Mayor has been adopted. Every veto which there has been occasion to send to either the City Council or to the Board of Aldermen has been sustained. Every one of the, happily few, removals of city officers which has been made, has been approved. Every nomination has, with one exception, been confirmed, and in that exception it is well known that there was no reflection upon the character or attainments of the nominee.

It is proper, then, to acknowledge, and I acknowledge gladly, the co-operation of the City Council.

I also acknowledge gladly the loyal support of the various executive boards and heads of departments, as well as that of their subordinate officials and employees.

To my fellow-townsmen, who, without exacting pledge or obligation, determined four times that I should exercise the executive powers of the city, I am grateful for their confidence, and I appreciate deeply the assurances so generally and earnestly made known to me, that my services were desired longer. The situation, however, did not seem to me to demand the sacrifice in my private concerns, which, under other circumstances, I should have felt it my duty to make, in response to a feeling in the community of which I could not be unconscious.

I have regarded the office of Mayor as purely administrative, and, indeed, there has been abundant evidence that a large number of the citizens of Cambridge believe that the chief executive office, under the present charter, should be held and administered like other salaried city offices, for the sole benefit of the people of Cambridge, and should not be used as an ornamental honor to be bestowed from time to time for the exaltation of individuals. So long as there is rotation in the distinctly legislative branch of the City Government, I see no conclusive objection to this view.

GENTLEMEN OF THE CITY COUNCIL: —

To our respected successors in office we shall soon transmit the management of the affairs to which we have given freely of our time and thought. We need feel neither pleasure nor regret at parting; for, as good citizens, although we retire from office, our duty will still oblige us to concern ourselves in these affairs. We shall be happy, and I am sure our successors will be happy also, if we use the knowledge acquired here to observe intelligently, and to discuss fairly, the transactions of the city, and to refrain from carping criticisms which neither help the official nor exalt the critic.

We bespeak for our successors, from those whom they represent, the same considerate treatment that has been accorded so generally to us, and as we anticipate, so we shall rejoice at, their successful conduct of municipal affairs.

Two years ago the prospects of the city led me to say what I now desire to repeat in taking leave; for already the progress of the city shows it to have been not unwarranted.

"There will be here in the not distant future a city of surpassing beauty. Here will be public buildings whose simple grandeur will impress the beholder. Private dwellings, also, spacious and pleasing, will meet the eye. Here, too, will be heard the hum of great industries. Public works of vast design, essential to health, convenience and comfort will be completed. Parks and drives and walks and waterways we shall have, and with them landscape views of varied loveliness. The charm of river and lake and hillside will be ours. Between rows of stately elms or other trees of luxuriant foliage, many streets will delight the stranger no less than they will satisfy the dweller thereon. Here are institutions where charity and religion will console the unfortunate and soothe the afflicted; institutions, also, where intellect and character will expand in that culture which increases the flower of American manhood and womanhood. Here are historic associations of momentous times, and from here has gone out to the world the fame of the country's foremost university. To these distinctions Cambridge will add the fortunate possession of public order born of true municipal greatness. Material wealth will increase, but no more rapidly, I believe, than will the moral vigor which shapes the purposes of our prosperous community."

APPENDIX

ORDINANCES

PASSED BETWEEN MARCH 1, 1896, AND MARCH 1, 1897.

An Ordinance in Amendment of Certain City Ordinances.

Be it ordained by the City Council of the City of Cambridge, as follows: —

The Revised Ordinances of 1892 are hereby amended in following chapters, viz:—

In Chapter 2, Section 10, in the line relating to the term of office of members of the Board of Health, by striking out the word "two" and inserting in place thereof, the word "three." The amended line and the line immediately following, will then read: —

(For three years from the first Monday in February.) A member of the Board of Health.

In Chapter 12, Section 1, by striking out the entire section and inserting in place thereot the following:—

Section 1. The health department shall be under the charge of the Board of Health, which shall consist of three persons not members of the City Council, one of whom shall be a doctor of medicine. One of them shall be appointed by the Mayor subject to the confirmation by the Board of Aldermen, some time during the month of January of each year, to hold office for the term of three years from the first Monday in February, in the year of his appointment.

[*Approved April* 1, 1896.]

An Ordinance Relating to the Construction of a Certain Class of Buildings.

Be it ordained by the City Council of the City of Cambridge, as follows: —

All buildings hereafter erected, except buildings of the first class, shall be so divided by brick partition walls of the thickness prescribed for bearing partition walls, and carried thirty inches above the roof, that no space inside any such building shall exceed in area five thousand square feet, except upon the recommendation of the superintendent of public buildings and the approval of the City Council, and in no case to exceed seven thousand square feet; and no existing wall in any building except a building of the first class shall be removed so as to leave an area not so enclosed of more than five thousand square feet, except upon the recommendation of the superintendent of public buildings and the approval of the City Council, and in no case to exceed seven thousand square feet: provided that in buildings having a height of not over thirty-five feet, the height above the roof of the said brick partition walls need not exceed twelve inches.

Openings or doorways in partition walls referred to in this section shall not exceed two in number for each floor and the combined area of such openings on each floor shall not exceed one hundred square feet.

Each opening must be provided with two sets of metal-covered doors separated by the thickness of the wall, hung to rabbeted iron frames, or to iron hinges in brick or iron rabbets: provided this section shall not apply to churches, stables, depots or schoolhouses.

[*Approved, April* 30, 1896.]

An Ordinance Repealing an Ordinance Entitled Hackney Carriages and other Vehicles.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Chapter 38 of the Revised Ordinances of 1892, entitled "Hackney Carriages and Other Vehicles," is hereby repealed.

[*Approved July* 2, 1896.]

An Ordinance Relating to the Granting of Licenses and Permits and Bonds for the Same.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Section 1. All licenses and permits hereinafter issued to any person, persons, firm or corporation, under any ordinance or order of the City Council or either branch thereof, shall be issued subject to the condition that the same may be revoked at any time, at the option of the department or body from which the same were issued, or at the option of any future department or body.

SECT. 2. Such licenses and permits shall have no force or validity, until a bond or other satisfactory security shall be given to the city indemnifying and saving harmless the city from all liability, loss and expense whatsoever which the city may incur and suffer arising out of the issuing of such license or permit with such surety or sureties and in such amounts as may be satisfactory to the city auditor and approved by the Mayor.

SECT. 3. Additional sureties shall be furnished on all such bonds mentioned in Section 2 of this ordinance, as well as on all bonds heretofore given under any ordinance or order of the City Council or either branch thereof whenever, in the manner and as often as in the opinion of the department or body from which the licenses and permits were issued, or any such future department or body, it seems to be for the best interests of the city to require the same.

SECT. 4. In addition to and as a further condition of the bond so as aforesaid to be given, the person or persons so licensed or permitted, by an agreement satisfactory to the city solicitor, for themselves, their heirs, successors and assigns shall agree to restore at their own expense and cost the premises, concerning which the license or permit was originally given, to the same condition in which the premises were at the time of the granting of such license or permit.

SECT. 5. The sufficiency of all sureties upon all bonds hereafter given to the city shall be examined at least once every year under the direction of the city auditor who shall report the result of such examination to the respective department or other body which issued the license or permit, or any succeeding department or body.

SECT. 6. All existing ordinances and parts thereof, in so far as they are inconsistent with this ordinance, are to that extent hereby modified or repealed, otherwise this ordinance shall be in addition to all existing ordinances having reference to the matters herein contained.

[*Approved July* 2, 1896.]

An Ordinance Relating to the Continuance of Pay of City Employees under Chapter 364 of Acts of 1894.

Be it ordained by the City Council of the City of Cambridge, as follows: —

SECTION 1. Every employee of the city injured while in the performance of his duty without fault on his part, in order to entitle him to compensation under Chapter 364 of the Acts of 1894 and any and all acts that may be enacted in addition thereof and supplementary thereto, shall petition the City Council upon blanks to be prepared by the city solicitor, in which petition shall be set forth the time, place, and cause of the injury and his willingness to communicate and disclose all facts and circumstances relating and appertaining to said injury.

SECT. 2. Said petition shall be forthwith referred to the Committee on Claims, who shall investigate and report upon the same with such recommendations as to the length of time, if any, for the continuance of the pay of the injured employee thereon as to the committee may seem proper.

SECT. 3. Upon the happening of any accident to any employee, the city physician and city solicitor shall be forthwith notified by the department in which the injured person was then employed.

SECT. 4. After an investigation of the facts relating to the injury and an examination from time to time of the injured person by the city physician as to the extent of the injuries, all of which shall be under the direction of the city solicitor, a report shall be made by the latter in which shall be annexed a certificate of the city physician in a form satisfactory and as the city solicitor may deem to be in accordance with the statutes in such cases now and hereafter provided.

SECT. 5. The Committee on Claims, in addition to the report of the city solicitor, may hear such other facts as they may deem proper and shall report thereon to the City Council. If the Committee is in favor of the continuance of pay of such employee, and if their report is adopted by the council and approved by the Mayor, the amount so allowed shall be entered upon the books of and verified by the department in which the injured was employed at the time the injury was sustained.

SECT. 6. Upon a certificate of and verification by the superintendent or head of department in which the injured was employed that the time allowed by the Committee is correct, the amount of wages shall be forthwith paid upon the draft of the Mayor upon the execution by the injured person of a receipt and release in full of all demands against the city for any and all injuries arising out of or in any way connected with said injury.

SECT. 7. Should the disability continue beyond the time of the first payment or thereafterwards appear, further payments may be had and made from time to time upon other petitions of the injured, after investigation and report thereupon by the Committee on Claims, upon the certificate of the city physician, the adoption of the same by the City Council and approval of the Mayor, under the general forms, provisions and conditions as are hereinbefore provided.

[*Approved July* 2, 1896.]

An Ordinance in Amendment of an Ordinance in Relation to Plumbing.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Section 23 of an ordinance in relation to plumbing, approved November 23, 1893, is hereby amended so as to read as follows: —

Section 23. Before being used or covered up, all work must be tested in the presence of an inspector of plumbing with the water test. Drainage and ventilation pipes undergoing repairs consequent upon damage by fire or other cause shall in the discretion of the inspector of buildings be submitted to the water test.

[*Approved July* 2, 1896.]

An Ordinance in Further Amendment of an Ordinance Relating to Fire Limits and to the Construction of Buildings within Certain Districts Therein.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Section 1. Section 4 of an ordinance in further amendment of an ordinance relating to fire limits and to the construction of buildings within certain districts therein, approved January 2, 1896, is hereby amended by striking out the words "forty feet or less" in the fifth line, and inserting instead thereof the words "less than twenty feet in height shall be twelve inches thick; such walls of such buildings twenty feet or over but less than forty feet in height," so that said Section 4 as hereby amended shall read as follows: —

Sect. 4. The external and party walls of all buildings of the first and second class other than dwellings shall be as follows: Above the foundation of every such building less than twenty feet in height shall be twelve inches thick; such walls of such buildings twenty feet or over but less than forty feet in height shall be sixteen inches thick to the top of the second floor and twelve inches for the remaining height. Such walls of such buildings of forty feet or over but not over sixty feet in height, twenty inches to the top of the second floor, sixteen inches for the remaining height. Such walls of such buildings of sixty feet or over but not over eighty feet high, twenty-four inches to the top of the first floor, twenty inches to the top of the upper floor, and to within fifteen feet of the roof, and sixteen inches above. Such walls of such buildings of eighty feet or more in height shall have for the upper eighty feet the thickness required for buildings between seventy feet and eighty feet in height, and every section of twenty-five feet or part thereof below such upper eighty feet shall have a thickness of four inches more than is required for the section next above it.

[*Approved July* 8, 1896.]

An Ordinance in Amendment of Certain City Ordinances.

Be it ordained by the City Council of the City of Cambridge, as follows : —

SECTION 1. Section 16 of Chapter 1 of the Revised Ordinances of 1892, as heretofore amended, is hereby further amended by striking out therefrom the words "Ambulance Department."

SECT. 2. Section 10 of Chapter 2 of the Revised Ordinances of 1892, as heretofore amended, is hereby further amended by striking out after the words "Two Commissioners on the Sinking Funds of the City" in the sixty-second line thereof, the words, "for one year from the first day of June, a superintendent of ambulances."

[*Approved July* 15, 1896.]

An Ordinance in Repeal of an Ordinance in Relation to the Ambulance Department.

Be it ordained by the City Council of the City of Cambridge, as follows :—

SECTION 1. The ordinance in relation to the Ambulance Department approved December 29, 1894, is hereby repealed.

[*Approved July* 15, 1896.]

An Ordinance in Amendment of Chapter 19 of the Revised Ordinances of 1892.

Be it Ordained by the City Council of the City of Cambridge, as follows : —

Section 1 of Chapter 19 of the Revised Ordinances of 1892 is hereby amended by adding in the fifth line thereof after the word "wagons" the words "emergency ambulances" so the said section as amended shall read as follows:—

SECTION 1. The police department shall be under the charge of the chief of police, who shall hold his office during the pleasure of the Mayor and Alderman. He shall have under the direction of the Mayor, the care and custody of the patrol wagons, emergency ambulances, police vans and other vehicles, harnesses and horses used by the police force and all the furniture and other property of the city at the several police stations except that the apparatus of the police signal system shall be under the supervision of the inspector of wires. The chief of police shall also have the charge of all police stations."

Section 3 of said Chapter 19 of the Revised Ordinances of 1892, shall hereafter be numbered as Section 5 and before the same shall be inserted the following sections:—

SECT. 3. The chief of police shall within the city limits direct and control the transportation of all injured persons who require immediate care, relief and assistance.

SECT. 4. The chief of police shall employ suitable persons to assist, and shall provide and contract, under the ordinances, for suitable materials, appliances, and means to carry out and accomplish the provisions of this ordinance, and shall be responsible for the faithful and complete execution of the same.

So that said Chapter 19 as hereby amended shall read as follows:—

CHAPTER XIX.

POLICE.

SECTION 1. The police department shall be under the charge of the chief of police, who shall hold his office during the pleasure of the Mayor and Aldermen. He shall have under the direction of the mayor, the care and custody of the patrol wagons, emergency ambulances, police vans and other vehicles, harnesses and horses used by the police force, and all the furniture and other property of the city at the several police stations, except that the apparatus of the police signal system shall be under the supervision of the inspector of wires. The chief of police shall also have charge of all the police stations.

SECT. 2. The chief of police shall keep a correct and complete record of the business of the department, and shall make such reports to the Mayor from time to time as he shall require, concerning all matters relating to the police department, and to the property of the city used by the police force.

SECT. 3. The chief of police shall within the city limits direct and control the transportation of all injured persons who require immediate care, relief and assistance.

SECT 4. The chief of police shall employ suitable persons to assist, and shall provide and contract, under the ordinances for suitable materials, appliances and means to carry out and accomplish the provisions of this ordinance, and shall be responsible for the faithful and complete execution of the same.

Sect. 5. The chief of police shall make a report to the City Council annually, in the month of December, of all the receipts and expenditures of his department, the organization and efficiency of the force, and an itemized statement of all the materials, tools and property of every kind belonging to the city, on hand December first, with their estimated value. He shall also at the same time make a return of the fees and perquisites received by him and other members of the police force.

[*Approved July* 15, 1896.]

An Ordinance in Partial Repeal of Chapter 18 of the Revised Ordinances of 1892.

Be it ordained by the City Council of the City of Cambridge, as follows : —

Section 1. Sections 3, 4, 5, 6, 7 and 8 of Chapter 18 of the Revised Ordinances of 1892 are hereby repealed; and the title or heading of "Assistant City Physician" as it appears in said Revised Ordinances of 1892 just prior to said Section 3 is hereby stricken out.

[*Approved Oct.* 22, 1896.]

An Ordinance in Amendment of and in Addition to the Revised Ordinances of 1892, in Relation to the City Physician.

Be it ordained by the City Council of the City of Cambridge as follows : —

The following chapter shall be and is hereby added to the Revised Ordinances of 1892, and shall be and is hereby entitled as Chapter 45 of the Revised Ordinances of 1892, to wit:—

CHAPTER XLV.

CITY PHYSICIAN.

Section 1. The city physician at the time of his appointment shall be a resident of Cambridge, a graduate of a legally incorporated medical school and have practised as such physician for at least five years continuously prior to his appointment.

Sect. 2. It shall be the duty of the city physician to attend, under the general direction of the overseers of the poor, upon all sick and insane paupers and other patients under the care of the city authorities at the almshouse or elsewhere; to vaccinate, free of charge, all persons sent to him by the overseers of the poor, and such scholars of the public schools as the school committee shall direct, and all other needy residents of the city who may apply to him; to give certificates of examination to such children of the public schools as he shall have effectually vaccinated; to examine all candidates for appointment to the police force and fire department; under the direction of the city solicitor to examine the condition of all officers upon the police force and fire department and all employees of the city incapacitated from the performance of their several duties and all cases of injuries upon the highway or elsewhere whereby the city may become liable, and render written report thereon to the city solicitor as and when required by the latter, together with such certificates as the law and ordinances may require; upon application to sign the certificate of the cause of death to the best of his knowledge and belief, if there has been no physician in attendance; at the request of the officers in charge upon the police stations and lockups to attend and give, free of charge, the necessary medical and surgical treatment to the prisoners therein; at the request of the city solicitor to render such professional aid in court or otherwise as the latter may designate, in all suits and matters wherein the city is or may be interested; in case of an alarm of any infections or contagious disease, or other cause of nuisance, to give to either branch of the city council or any committee thereof all such professional advice, service and counsel as they may require: and, in general, to perform all the duties and render all the services now and that hereafter may be incumbent upon him by the laws of the commonwealth or the ordinances of the city now or that hereafter may be in force.

SECT. 3. The city physician shall receive such salary as the City Council may by ordinance from time to time determine, which shall be in full of all services performed by him. He may expend to an amount not exceeding appropriations made for that purpose such sums as he may necessarily expend in the administration of the affairs of his office. He shall keep an account of his expenditures and certify by his signature upon all bills his approval of the same, and the same shall be audited, charged and paid in the manner as now provided by ordinance for bills of executive boards and heads of departments.

SECT. 4. The city physician may employ such permanent assistant or assistants for such time and compensation as the city council may from time to time determine, and in all cases he shall be responsible for the conduct of such assistant or assistants.

SECT. 5. Annually in the month of December the city physician shall make report to the City Council of the professional services rendered by him, with such suggestions as he may deem proper.

[*Approved Oct.* 22, 1896.]

An Ordinance Establishing the Salaries of the Three Additional Permanent Men in the Fire Department.

Be it ordained by the City Council of the City of Cambridge, as follows : —

The salaries of the three additional permanent men in the Fire Department shall be the same as the salaries paid to the assistant enginemen, drivers and tillermen.

[*Approved Oct.* 28, 1896.]

An Ordinance in Amendment of an Ordinance Entitled Fire.

Be it ordained by the City Council of the City of Cambridge, as follows : —

Section 9 of Chapter 11 of the Revised Ordinances of 1892 is hereby amended by adding at the end thereof the following : —

"In addition to the permanent force before mentioned, there shall also be appointed three men who shall be constantly employed, and who shall be assigned as the chief engineer may direct."

[*Approved Oct.* 28, 1896.]

An Ordinance in Amendment of Chapter 24 of the Revised Ordinances of 1892.

Be it ordained by the City Council of the City of Cambridge, as follows :—

SECTION 1. Section 7 of Chapter 24 of the Revised Ordinances of 1892 is hereby amended by striking out the last sentence thereof, to wit, the words: "No street shall be opened by drain layers or others, between the fifteenth day of November and the first day of April, except in cases of necessity, certified to and approved by the Mayor."

SECT. 2. Section 10 of Chapter 24 of the Revised Ordinances of 1892 is hereby amended by striking out in the seventh line thereof the words "Mayor or some person by him authorized," and inserting instead the words "superintendent of streets," so that said Section 10 as hereby amended shall read as follows:

"Section 10. No person shall break or dig up the ground or stones in any street, or on any sidewalk, or erect any staging for building, or place or deposit any stone, bricks, timber or building materials thereon, or otherwise occupy, obstruct or encumber the same, without first obtaining a written license from the superintendent of streets for that purpose, and complying in all respects with the conditions of such license."

SECT. 3. Section 11 of Chapter 24 of the Revised Ordinances of 1892 is hereby repealed, and instead thereof the following is hereby inserted as said Section 11, to wit: —

SECT. 11. The superintendent of streets may grant licenses in writing to persons having authority in the premises to open, occupy, obstruct, encumber and use parts of any street or sidewalk, and every such license shall specify the time, place, size and use of such opening, occupation or obstruction, and the time within which the street must be put in a condition satisfactory to the superintendent of streets, and each license so granted shall be upon the condition that the person accepting the same shall conform to the statutes and ordinances of the city in force and that may thereafter be in force, and to the specifications in the license; that the license may be revoked at any time by the superintendent of streets; that before performing any work authorized by said license the party licensed shall execute a bond to the city conditioned as required by the ordinances of the city, and subject to the additional condition that he will cause the excavation and obstruction to be properly fenced during the whole time the street is opened and obstructed; that he will place and maintain from the beginning of twilight, through the whole of the night, over or near the place so occupied, opened, obstructed or used, and over or near any dirt, gravel or other material when thereupon or to be used by him, a light or lights fixed to said fence or in some other proper manner sufficient to protect travellers from injury; shall place and maintain a safe and convenient way for the use of foot travellers, and a safe and convenient passage for public travel around or over such place; that if he does not, within the time prescribed by said superintendent, put the street into good condition, satisfactory to said superintendent, he will pay whatever sum the said superintendent shall expend for putting it into good condition, and that he will deliver up the license to the Superintendent of Streets on or before the expiration of the time fixed in the license for completing the work or any extension or extensions of the same. Said Superintendent may, in addition to said specifications, specify in the license, or after the issuing thereof, in writing, the kind of rail or fence to enclose the place, and the kind of way over or around such place, and the manner of constructing the same; and nothing herein contained shall be construed to prevent the insertion in the license of any other specification deemed advisable by the superintendent of streets.

Should any portion of the street which has been excavated require repaving or resurfacing within a period of one year from the time it has been disturbed, the superintendent of streets shall, by mail, postage prepaid, notify in writing the person applying for the license under authority of which the disturbance was made, to forthwith make such repairs as, in the opinion of said superintendent, are necessary, and in case of the failure of the said person to make such repairs within twenty-four hours after the sending of such notice aforesaid to the last known address of such person, the superintendent of streets shall then have the right to make such necessary repairs, and the expense of the same shall be paid by the said person, and all amounts received by the city collector for work done or materials furnished under the direction of the superintendent of streets, as above authorized, shall be placed to the credit, and be used as a part, of the appropriation of the street department.

Whenever any street is opened, occupied, obstructed or encumbered by any department of the city, or any corporation or person, the superintendent of streets shall prevent any unnecessary obstruction while the work is in progress, and shall see that the street is repaired and put in good order when the work is completed. If the street is not repaired to his acceptance he shall forthwith put the same in good order, and shall render a bill for the expense of such repair to the department, corporation or person whose duty it was to repair the street. All openings made in the street for any purpose whatever shall be filled back in layers six inches in depth, and each layer shall be properly rammed and, when necessary, shall be wet down to prevent settling of the filling.

Before any license hereinbefore described is delivered to any person for the applicant therefor, such person, unless he is an employee of the city, employed on public work, shall certify that a copy of the license entered in a book kept for the purpose is a correct copy of the license he received, and the applicant, unless the application is made in behalf of a department of the city or by a person who has given bond and who applies for a license in accordance with the provisions of Chapter 22 of the Revised Ordinances of 1892, shall give a bond in the sum of one thousand dollars with one or more sureties conditioned to the faithful observance of the condition and specifications of every and all such licenses issued to the applicant, and the superintendent of streets may at any time require a new bond which shall be considered a strengthening bond, unless the sureties on the former bond are expressly released from their liability by vote of the city council.

Whenever any department of the city, or any corporation or person shall lawfully make any opening or cause any obstruction in any street, such department, corporation or person shall be held responsible for any damages that may result from such opening or obstruction for a period of one year from the time of making the same.

Said superintendent shall not issue any such license to a person who has within one year previous to his application violated or failed to observe the conditions or specifications of any such license without special authority of the city council.

Said superintendent shall keep a record of the notices of defects sent to him, with the name of any person giving the notice, and the time when given, and he shall without delay cause the locality of the alleged defect to be examined, and, if the defect is of such a character as to endanger the safety of public travel, shall do whatever may be necessary to prevent the public from injury by the defect, and cause it to be immediately repaired; and every person in the employ of the city shall send to said superintendent notice of every such defect of which he has any knowledge.

SECT. 4. Section 12 of Chapter 24 of the Revised Ordinances of 1892 is hereby repealed, and instead thereof the following is hereby inserted as said section 12, to wit:

SECTION 12. Said superintendent shall grant such a license to a person who presents a license from the water department to repair or lay water pipes, and to a person who presents a license from the superintendent of lamps to connect with the lamps or pipes of the city.

Said superintendent may grant to competent persons engaged in the business, licenses to occupy and use certain portions of the streets for the purpose of raising and lowering goods and merchandise into and from buildings, on condition the terms of which shall be those stated in Section 11 of this chapter, so far as the same may apply, and in addition that the person applying for the license shall maintain, during the whole time the work is in progress, good and sufficient barriers across the sidewalk, from the wall of the building to or from which they are so raised, out to the curbstone or edge of the sidewalk, on each side of said goods or merchandise, sufficient to protect travellers from injury or danger; and that he will not encumber the sidewalk for more than fifteen minutes at a time for such work.

[*Approved, Nov.* 18, 1896.]

An Ordinance in Amendment of Section 28 of Chapter 14 of the Revised Ordinances of 1892, in relation to the Inspection and Supervision of Wires.

Be it ordained by the City Council of the City of Cambridge as follows: —

SECTION 1. Section 28 of Chapter 14 of the Revised Ordinances of 1892 is hereby amended by striking out the word "permit" in the fifth line and inserting instead thereof the word "license," and also by striking out the word "Mayor" in the sixth line and inserting instead thereof the words "superintendent of streets," so that the first sentence of said Section 28 shall read as follows: —

SECT. 28. No street, way or bridge shall be torn up or disturbed for the purpose of laying, repairing, changing or removing lines, wires or conduits, or erecting, altering or removing posts, poles or other fixtures used for carrying electric lines or wires, without a license first obtained from the superintendent of streets indicating the time, manner and place of disturbance, with the conditions under which such is permitted.

[*Approved Nov.* 25, 1896.]

An Ordinance in Amendment of an Ordinance in Relation to the City Seal.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Section 1 of Chapter 28 of the Revised Ordinances of 1892 is hereby amended so as to read as follows:—

SECTION 1. The following shall be the device of the seal of the city, to wit: In the centre thereof a shield bearing upon it a view, on the right the towers of Gore hall, and on the left the Washington elm; under the shield the inscription shall be, "Cantabrigia Condita A. D. 1630: Civico Regimine Donata A. D. 1846." Around the seal, as the city motto, shall be the words, "Literis antiquis novis institutis decora."

SECT. 2. The city clerk shall be the custodian of the city seal.

SECT. 3. This ordinance shall take effect on the first day of January, A. D. 1897.

[*Presented to His Honor, the Mayor, for approval on November* 25, 1896, *and, not being returned by him with his objections thereon within ten days from said* 25*th day of November*, 1896, *the aforesaid ordinance is now in force.*]

An Ordinance in Relation to Issue of Bonds.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Upon all future loans of the city, the city treasurer shall issue only such an amount of bonds as shall, together with the premiums received thereon, meet as nearly as possible the requirements of the order for each respective loan.

[*Approved Dec.* 9, 1896.]

An Ordinance in Partial Amendment of an Ordinance entitled "An Ordinance in further Amendment of an Ordinance Relating to Fire Limits and to the Construction of Buildings within Certain Districts therein," approved Jan. 2, 1896.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Section 11 of an ordinance entitled "An ordinance in further amendment of an ordinance relating to fire limits and to the construction of buildings within certain districts therein," approved Jan 2, 1896, is hereby repealed, and the following is inserted instead thereof, to wit:

SECTION 11. Every brick building hereafter erected more than 40 feet in width, except buildings and dormitories of the first class, public buildings, one-story buildings, hotels, railroad stations, stables, and schoolhouses, shall have one or more brick or stone partition walls running from front to rear and carried up to the full height of the building. Said walls may be four inches less in thickness than is called for by the provisions hereinbefore made relating to the thickness of external walls for a brick building, but in no case to be less than 12 inches in thickness unless the wall is used for a floor-bearing wall, in which case said walls shall be of the same thickness as is hereinbefore required for external walls of brick buildings. One-story buildings referred to in this section shall not exceed 60 feet in width, and the total area of same shall not exceed 7,000 square feet.

[*Approved Dec.* 9, 1896.]

An Ordinance in Amendment of an Ordinance Entitled Fire.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Chapter 11 of the Revised Ordinances of 1892 is hereby amended as follows:—

In Section 1 by striking out the word "three" in the third line and inserting in place thereof the word "two."

In Section 12, as amended February 23, 1894, by striking out the word "eleven" in the third line of the amended section, and inserting in place thereof the word "nine."

As amended the sections before mentioned will read as follows:

Section 1. The fire department shall be under the charge of the chief engineer. The department shall consist of a chief engineer, two engineers, who shall be styled district chiefs, and of as many enginemen, assistant enginemen, hosemen and hook and ladder men, to be divided into companies, as the number of engines and other fire apparatus belonging to the city shall require.

Sect. 12. Each hook and ladder company, except the company in charge of the Hayes truck, so called, shall consist of a captain, lieutenant, driver and nine laddermen. The company in charge of the Hayes truck, so called, shall consist of a captain, lieutenant, driver, tillerman and not more than four laddermen. The captain and lieutenant shall be nominated by the chief engineer for appointment by the mayor and aldermen. The captain shall at all fires have charge and direction of his company. The lieutenant shall assist the captain in the discharge of his duties, and also act as clerk of the company. The driver and tillerman shall be constantly employed and at all times be in or about the hook and ladder house, except when unavoidably absent, or excused from duty by the chief engineer. The driver shall drive and have charge of the horses, shall keep the stable neat and clean, and perform such other duties as may be required of him by the chief engineer. The tillerman shall operate the tiller of the Hayes truck, so called, and shall perform such other duties as may be assigned to and required of him by the chief engineer.

[*Approved Dec.* 9, 1896.]

An Ordinance in Amendment of an Ordinance Relating to the Construction of a Certain Class of Buildings, approved April 30, 1896.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Section 1. The ordinance entitled "An Ordinance relating to the Construction of a Certain Class of Buildings," approved April 30, 1896, is hereby amended by inserting after the words "of the first class" in the fourth line thereof, the words, "buildings of one story in height not exceeding 20 feet to the apex of the roof thereof, and buildings in whole or in part two stories in height not exceeding 20 feet to the apex of the roof of the one-story portion and 30 feet to the apex of the roof of the two-story portion, exclusive of such cupolas or towers as may be approved by the superintendent of public buildings," and also by changing the period to a semicolon after the word "schoolhouses" at the end of said ordinance and inserting at that place the following: "And provided also that no part of any such one-story or two-story building shall be placed or maintained within fifteen feet of any other building or within fifteen feet of the line or lines of the adjoining lot or lots; that the exterior walls of every such one-story or two-story building in whole or in part, except brick and stone buildings, shall be covered with corrugated iron or slate: the roof shall be covered with tar and gravel, corrugated iron or slate, or any other incombustible material satisfactory to the superintendent of public buildings; and all window openings thereof shall be supplied with tinned or iron shutters; that no space inside any such two-story portion of any such building shall exceed in area five thousand square feet except upon the recommendation of the superintendent of public buildings and the approval of the City Council, and in no case to exceed seven thousand square feet; that every such area shall be separated from the one-story portion of such building by a brick partition of the thickness prescribed for bearing partition walls, and carried to the roof of the two-story portion of such building; that openings or doorways between the two-story and one-story portions of such buildings shall not exceed two in number for each floor and the combined area of such openings on each floor shall not exceed four hundred and fifty square feet, each opening or doorway to be furnished with two sets of metal-covered doors set and hung as hereinbefore specified; and provided also that the total area of any such one-story building shall not exceed twenty-five thousand square feet, except upon the recommendation of the superintendent of public buildings and approval of the City Council," so that said ordinance as thus amended shall read as follows: —

Be it ordained by the City Council of the City of Cambridge, as follows: —

All buildings hereinafter erected, except buildings of the first class, buildings of one story in height not exceeding 20 feet to the apex of the roof thereof, and buildings in whole or in part two stories in height not exceeding 20 feet to the apex of the roof of the one-story portion and 30 feet to the apex of the roof of the two-story portion, exclusive of such cupolas or towers as may be approved by the superintendent of public buildings, shall be so divided by brick partition walls, of the thickness prescribed for bearing partition walls and carried thirty inches above thereof, that no space inside any such building shall exceed in area five thousand square feet, except upon the recommendation of the superintendent of public buildings, and the approval of the City Council, and in no case to exceed seven thousand square feet; and no existing wall in any building except a building of the first class, shall be removed so as to leave an area not so enclosed of more than five thousand square feet, except upon the recommendation of the superintendent of public buildings and the approval of the City Council, and in no case to exceed seven thousand square feet; provided, that in buildings having a height of not over thirty-five feet, the height above the roof of the said brick partition walls need not exceed twelve inches.

Openings or doorways in partition walls referred to in this section shall not exceed two in number for each floor, and the combined area of such openings on such floor shall not exceed one hundred square feet.

Each opening must be provided with two sets of metal-covered doors separated by the thickness of the walls, hung to rabbeted iron frames, or to iron hinges in brick or iron rabbets; provided, this section shall not apply to churches, stables, depots or schoolhouses; and provided, also, that no part of any such one-story or two-story building shall be placed or maintained within fifteen feet of any other building or within fifteen feet of the line or lines of the adjourning lot of lots ; that the exterior walls of every such one-story or two-story building in whole in or part, except brick and stone buildings, shall be covered with corrugated iron or slate; the roof shall be covered with tar and gravel, corrugated iron or slate, or any other incombustible material satisfactory to the superintendent of public buildings; and all window openings thereof shall be supplied with tinned or iron shutters; that no space inside any such two-story portion of any such building shall exceed in area five thousand square feet, except upon the recommendation of the superintendent of public buildings and the approval of the City Council, and in no case to exceed seven thousand square feet; that every such area shall be separated from the one-story portion of such building by a brick partition of the thickness prescribed for bearing partition walls, and carried to the roof of the two-story portion of such building; that openings or doorways between the two-story and one-story portions of such buildings shall not exceed two in number for each floor, and the combined area of such openings on each floor shall not exceed four hundred and fifty square feet, each opening or doorway to be furnished with two sets of metal-covered doors set and hung as hereinbefore specified; and provided also that the total area of any such one-story building shall not exceed twenty-five thousand square feet. except upon the recommendation of the superintendent of public buildings and approval of the City Council.

[*Approved Dec.* 17, 1896.]

An Ordinance in Relation to the Salary of the Superintendent of Public Buildings.

Be it ordained by the City Council of the City of Cambridge, as follows: —

On and after the first day of January, Eighteen Hundred and Ninety-seven, the salary of the superintendent of public buildings shall be at the rate of Two Thousand Dollars a year.

[*Approved Dec.* 30, 1896].

An Ordinance in Amendment of Section 3 of Chapter 14 of the Revised Ordinances of 1892.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Section 3 of Chapter 14 of the Revised Ordinances of the year eighteen hundred and ninety-two, is hereby amended by changing the period to a semicolon after the word "city" in the fourth line thereof, striking out the word "He"; and by inserting the words "purchase and" after the word "shall" at the end of the fourth line; so that said Section 3 as hereby amended shall read as follows: —

SECTION 3. The inspector of wires shall, by virtue of his office, be the superintendent of the fire alarm telegraph, the police signal systems and other electric wires and wire systems now or hereafter owned by the city; shall purchase and have the care and management of the wires, apparatus and machinery, and other property connected therewith; shall keep the same at all times in good working order, and shall have access to all buildings and places necessary for these purposes. All additions to said systems, and all new electric wires and appliances erected by the city, or for its use, shall be erected under his supervision, and to his satisfaction.

[*Approved Dec.* 30, 1896.]

An Ordinance in Amendment of an Ordinance entitled Duties and Salaries, relating to the Salary of the City Physician.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Section 30 of Chapter 27 of the Revised Ordinances of 1892, is hereby amended in the line relating to the salary of the "Assistant City Physician" by striking out the word "assistant." As amended the line will read "City Physician, $1,500."

[*Approved Dec.* 30, 1896.]

An Ordinance in Further Amendment of Chapter 19 of the Revised Ordinances of 1892.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Section 3 of Chapter 19 of the Revised Ordinances of 1892 as previously amended is hereby further amended by changing the period at the end thereof to a comma and adding thereafterwards the words "and shall respond to all calls made upon him, for the use of the emergency ambulance, by the overseers of the poor for all cases except cases of contagious disease." So that said section as amended shall read as follows:—

SECTION 3. The chief of police shall within the city limits direct and control the transportation of all injured persons who require immediate care, relief and assistance, and shall respond to all calls made upon him, for the use of the emergency ambulance by the overseers of the poor for all cases except cases of contagious disease.

[*Approved Dec.* 30, 1896.]

MAYORS OF THE CITY OF CAMBRIDGE

From 1846 to 1897 inclusive.

James D. Green	from	May, 1846,	to April, 1848
Sidney Willard	“	April, 1848,	to April, 1851
George Stevens	“	April, 1851,	to April, 1853
James D. Green	“	April, 1853,	to April, 1854
*Abraham Edwards	“	April, 1854,	to January, 1855
Zebina L. Raymond	“	January, 1855,	to January, 1856
John Sargent	“	January, 1856,	to January, 1860
†James D. Green	“	January, 1860,	to July 24, 1861
‡Chas. Theo. Russell	“	July 31, 1861,	to January, 1863
George C. Richardson	“	January, 1863,	to January, 1864
Zebina L. Raymond	“	January, 1864,	to January, 1865
J. Warren Merrill	“	January, 1865,	to January, 1867
Ezra Parmenter	“	January, 1867,	to January, 1868
Chas. H. Saunders	“	January, 1868,	to January, 1870
Hamlin R. Harding	“	January, 1870,	to January, 1872
Henry O. Houghton	“	January, 1872,	to January, 1873
Isaac Bradford	“	January, 1873,	to January, 1877
Frank A. Allen	“	January, 1877,	to January, 1878
Samuel L. Montague	“	January, 1878,	to January, 1880
James M. W. Hall	“	January, 1880,	to January, 1881
James A. Fox	“	January, 1881,	to January, 1885
William E. Russell	“	January, 1885,	to January, 1889
Henry H. Gilmore	“	January, 1889,	to January, 1891
Alpheus B. Alger	“	January, 1891,	to January, 1893
William A. Bancroft	“	January, 1893,	to January, 1897
Alvin F. Sortwell	“	January, 1897.	Now in office.

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* Municipal year changed. † Resigned. ‡ First elected by the City Council.

PRESIDENTS OF THE BOARD OF ALDERMEN

1888	Edward W. Hincks.
1889	John H. Corcoran.
1890	Alvin F. Sortwell.
1891	William A. Bancroft.
1892	William A. Bancroft.
1893	John R. Fairbairn.
1894	John G. Thorogood.
1895	John R. Fairbairn.
1896	John R. Fairbairn.
1897	Russell Bradford.

PRESIDENTS OF THE COMMON COUNCIL

1846	Isaac Livermore.
1847	John Sargent.
1848	John C. Dodge.
1849	Samuel P. Heywood.
1850	Samuel P. Heywood.
1851	John S. Ladd.
1852	John Sargent.
1853	John Sargent.
1854	John C. Dodge.
1855	Alanson Bigelow.
1856	Ezra Ripley. Resigned January 31.
	George S. Saunders. Elected January 31.
1857	George S. Saunders.
1858	James C. Fisk.
1859	James C. Fisk.
1860	Hamlin R. Harding.
1861	Hamlin R. Harding.
1862	Jared Shepard. Resigned September 17.
	Knowlton S. Chaffee. Elected September 24.
1863	George S. Saunders.

1864	George S. Saunders.
1865	John S. March.
1866	John S. March.
1867	Marshall T. Bigelow.
1868	Knowlton S. Chaffee. Resigned February 4.
	Henry W. Muzzey. Elected February 4.
1869	Henry W. Muzzey.
1870	Joseph H. Converse.
1871	Joseph H. Converse.
1872	Alvaro Blodgett.
1873	Alvaro Blodgett. Resigned June 17.
	Francis H. Whitman. Elected June 17.
1874	George F. Piper.
1875	George F. Piper.
1876	Frank A. Allen.
1877	Perez G. Porter.
1878	George S. Saunders.
1879	George S. Saunders.
1880	Charles Walker.
1881	Charles Walker.
1882	George H. Howard.
1883	George H. Howard.
1884	George H. Howard.
1885	Cornelius G. H. Bennink.
1886	John H. Corcoran.
1887	John H. Corcoran.
1888	Alvin F. Sortwell.
1889	Edward A. Bingham.
1890	Edward A. Bingham.
1891	Edward C. Wheeler.
1892	Herbert A. Chase.
1893	J. Henry Russell.
1894	Charles M. Conant.
1895	John L. Odiorne.
1896	John L. Odiorne.
1897	Albert S. Apsey.

GOVERNMENT OF THE CITY OF CAMBRIDGE
1897

Mayor.

Hon. ALVIN F. SORTWELL, 48 Highland Street.

Board of Aldermen.

President.

Russell Bradford.

Ward One.

Russell Bradford	375 Harvard St.
Walter C. Wardwell	465 Broadway.

Ward Two.

Clement G. Morgan	330 Columbia St.
John L. Odiorne	287 Harvard St.

Ward Three.

Peter B. Bleiler	60 Spring St.
John T. Shea	47 Fifth St.

Ward Four.

Eben H. Googins	91 Franklin St.
Charles P. Keith	114 Magazine St.
Warren F. Spalding	140 Chestnut St.

Ward Five.

Watson G. Cutter	37 Linnæan St.
James A. Wood	1691 Massachusetts Ave.

Edward J. Brandon, *Clerk*.

Common Council.

President.

Albert S. Apsey.

Ward One.

Melville C. Beedle	31 Wendell St.
William F. Brooks	35 Aberdeen Ave.
A. Sherburne K. Clark	12 Plympton St.
George E. Saunders	5 Concord Ave.

Ward Two.

Sedley Chaplin	32 Fayette St.
Fred A. Ferris	32 Suffolk St.
Frank McLaughlin	122 Tremont St.
Charles H. Montague	26 Fayette St.
John E. Smith	241 Norfolk St.

Ward Three.

George H. Dinan	66 Spring St.
Cornelius Minihan	54 Sixth St.
John J. Scott	124 Otis St.
James J. Scully	60 Otis St.

Ward Four.

Edgar P. Baker	33 Pearl St.
Daniel S. Coolidge	27 William St.
William P. Davis	58 Putnam Ave.
Hugh E. McGoldrick	131 Franklin St.
Hamilton H. Perkins	95 Henry St.

Ward Five.

Albert S. Apsey	20 Haskell St.
Charles H. Fosgate	106 Raymond St.

Edward A. Counihan, *Clerk.*

City Clerk.

Edward J. Brandon.

Assistant City Clerk.

Albert M. Pear.

City Messenger.

Francis L. Pratt.

COMMITTEES OF THE CITY COUNCIL

Joint Standing Committees.

Accounts. Aldermen Keith and Googins; Councilmen Montague, Brooks, and Perkins.

Almshouse. Aldermen Wood and Googins; Councilmen Beedle, Chaplin, and Smith.

Assessors' Department. Alderman Cutter; Councilmen Coolidge, and Scott.

City Engineering. Aldermen Spalding and Shea; Councilmen Scott, Saunders, and Baker.

Claims. President Bradford, Aldermen Cutter, Morgan, and Spalding; President Apsey, Councilmen Smith, Scully, McGoldrick, Clark, and Fosgate.

Electric Wires. Aldermen Wardwell and Googins; Councilmen Saunders, Smith, and McGoldrick.

Finance. President Bradford, Aldermen Cutter, Keith, and Odiorne; President Apsey, Councilmen Minihan, Coolidge, Chaplin, Saunders, and Fosgate.

Fire Department. Aldermen Bleiler and Odiorne; Councilmen Ferris, Scully, and Davis.

Health. Aldermen Googins and Shea; Councilmen Chaplin, Saunders, and Ferris.

Lamps. Aldermen Bleiler and Wood; Councilmen Perkins, Brooks, and Dinan.

Legislative Matters. President Bradford, Aldermen Spalding and Shea; President Apsey, Councilmen Minihan, Davis, and Ferris.

Ordinances. Aldermen Bleiler and Morgan; Councilmen Coolidge, Scott, and Beedle.

Printing. Aldermen Bleiler and Googins; Councilmen Beedle, McGoldrick, and Dinan.

Parks. Aldermen Odiorne and Wardwell; Councilmen Coolidge, Montague, and Davis.

Public Instruction. Aldermen Bleiler and Keith; Councilmen Scott, Baker, and Clark.

Public Property. Aldermen Keith and Wardwell; Councilmen Beedle, Chaplin, and Smith.

Roads and Bridges. Aldermen Wardwell and Shea; Councilmen Minihan, Brooks, and McLaughlin.

Rules and Orders. Aldermen Morgan and Wood; Councilmen Dinan Davis and McLaughlin.

Water Supply. Aldermen Wood and Odiorne; Councilmen Montague, Brooks and McGoldrick.

Standing Committees of the Board of Aldermen.

Bonds. Aldermen Wood, Spalding and Shea.

Claims. President Bradford, Aldermen Aldermen Cutter, Morgan and Spalding.

Elections and Returns. Aldermen Morgan, Cutter and Keith.

Fire Department. Aldermen Bleiler, Wood and Odiorne.

Health. Aldermen Googins, Spalding and Shea.

Licenses. Aldermen Spalding, Wood and Googins.

Parks. Aldermen Cutter, Odiorne and Wardwell.

Police. Aldermen Wood, Wardwell and Bleiler.

Roads and Bridges. Aldermen Wardwell, Shea and Odiorne.

Rules and Orders. Aldermen Morgan, Wood and Spalding.

Sewers and Drains. Aldermen Bleiler, Keith and Wardwell.

Soldiers' Aid. Aldermen Keith, Wood, Odiorne, Wardwell and Shea.

Street Railways. Aldermen Bleiler, Googins and Wardwell.

Standing Committees of the Common Council.

Bills in Second Reading. Councilmen Baker, Clark and Dinan.

Elections and Returns. Councilmen Coolidge, McLaughlin and Fosgate.

Enrolled Ordinances. Councilmen Montague, Perkins and Scully.

Clerk of Committees.

John McDuffie.

City Treasurer.

William W. Dallinger.

City Auditor.

Harry T. Upham.

City Solicitor.

Gilbert A. A. Pevey.

City Engineer.

Lewis M. Hastings.

Chief of Police.

Lothrop J. Cloyes.

Chief Engineer of Fire Department.

Thomas J. Casey.

Superintendent of Streets.

Charles A. Brown.

Superintendent of Public Buildings and Inspector of Buildings.

William H. Gray.

Superintendent of Sewers.

Theodore L. Pike.

Superintendent of Lamps.

Charles F. Hopewell.

Inspector of Wires.

Charles F. Hopewell.

Inspector of Milk.

Frank A. Dunbar, M.D.

Inspector of Vinegar.

Frank A. Dunbar, M.D.

Sealer of Weights and Measures.

Albert F. Roberts.

Bridge Commissioner.

William J. Marvin.

Harbor Master.

William J. Marvin.

Inspector of Animals and Provisions.

Charles E. Hadcock, M.D.V.

City Physician.

Lewis L. Bryant, M.D.

Surveyor of Highways.

His Honor, the Mayor.

School Committee.

Alvin F. Sortwell, Mayor, *Chairman ex officio.*
(Term, three years.)

WARD I.

William Taggard Piper (term expires 1897).
Elizabeth Q. Bolles (term expires 1898).
Frank W. Taussig (term expires 1899).

WARD II.

Caroline L. Edgerly (term expires 1897).
Alphonso E. White (term expires 1898).
Robert O. Fuller (term expires 1899).

WARD III.

William H. Clancy (term expires 1897).
Ellen M. Coburn (term expires 1898).
Edward B. Malley (term expires 1899).

WARD IV.

Charles F. Wyman (term expires 1897).
Frank C. Chamberlain (term expires 1898).
*Jenny H. S. Lansing (term expires 1897).

WARD V.

Carolyn P. Chase (term expires 1897).
Frederic W. Taylor (term expires 1898).
George P. Johnson, (term expires 1899).

Secretary,
Sanford B. Hubbard.

Superintendent of Schools.
Francis Cogswell.

Board of Health.

E. Edwin Spencer, M.D., *Chairman.*
(Term, three years.)

E. Edwin Spencer, M.D., (term expires 1898).
Edmund M. Parker (term expires 1899).
Charles Harris (term expires 1900).

Clerk.
James B. Soper.

Medical Inspector.
Edward Farnum, M.D.

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* Elected by Aldermen and School Committee, January 26, 1897

Board of Assessors.

Andrew J. Green, *Chairman.*
(Term three years.)
John M. Davis (term expires 1897).
Andrew J. Green (term expires 1898).
Joshua G. Gooch (term expires 1899).

Clerk of the Board.
John M. Davis.

Assistant Assessors.
Warren Ivers.
Daniel B. Shaughnessy.
George H. Munroe.
Arthur M. Stewart.
Edwin K. Hall.

Overseers of the Poor.

William W. Burrage, *Chairman.*
(Term, five years.)
Stephen Anderson (term expires 1897).
Alexander Millan (term expires 1898).
William W. Burrage (term expires 1899).
Charles Bullock (term expires 1900).
Charles Walker (term expires 1901).

Secretary.
David P. Muzzey.

Visitor.
Vespasian Danforth.

Superintendent of Almshouse.
Martin L. Eldridge.

Cemetery Commissioners.

George S. Saunders, *Chairman.*
(Term, three years).
Nathan C. Lombard (term expires 1898).
John H. H. McNamee (term expires 1898).
Herbert A. Chase (term expires 1899).
George S. Saunders (term expires 1899).
William A. Bertsch (term expires 1900).
Charles O. Welch (term expires 1900).

Clerk of the Board.
Edward J. Brandon.

Superintendent of Cemetery.
Charles S. Childs.

Trustees of Cambridge Public Library.

William Taggard Piper, *President.*
(For one year.)

William T. Piper, *of School Committee.*
(Term, three years.)

Citizens at large.

Thomas W. Higginson (term expires 1898).
Edward C. Wheeler (term expires 1898).
Albert M. Barnes (term expires 1899).
Jabez Fox (term expires 1899).
Augustine J. Daly (term expires 1900).
William J. Rolfe (term expires 1900).

Secretary.	*Treasurer.*
Jabez Fox.	Augustine J. Daly.

Librarian.

W. L. R. Gifford.

Cambridge Water Board.

James M. W. Hall, *President.*
(Term, five years.)

Stillman F. Kelley (term expires 1897).
Wellington Fillmore (term expires 1898).
Frank A. Allen (term expires 1899).
George H. Howard (term expires 1900).
James M. W. Hall (term expires 1901).

Clerk of the Board.

Walter H. Harding.

Acting Superintendent of Water Works.

Edwin C. Brooks.

Assistant Superintendent of Water Works.

Charles B. Parker.

Pumping Engineer.

Edwin C. Brooks.

Water Registrar.

Walter H. Harding.

Park Commissioners.

Henry D. Yerxa, *President.*
(Term, three years.)

John O'Brien (term expires 1897).
George Howland Cox (term expires 1898).
Henry D. Yerxa (term expires 1899).

Secretary.
George Howland Cox.

General Superintendent.
Howard E. Whiting.

Registrars of Voters.

James Cox, *Chairman.*
(Term, four years.)

Isaac S. Pear (term expires 1897).
Isaac Bradford (term expires 1898).
James Cox (term expires 1899).
William J. Breen (term expires 1900).

Clerk.
Isaac Bradford, Jr., *Temporary Registrar.*

Commissioners of the Sinking Funds.

Charles H. Saunders, *Chairman.*
(Term, three years.)

Andrew J. Lovell (term expires 1897).
J. Henry Russell (term expires 1897.)
Frank A. Allen (term expires 1898).
Charles H. Saunders (term expires 1898).
John C. Bullard (term expires 1899).
George H. Howard (term expires 1899).

Secretary.
John McDuffie.

Treasurer.
William W. Dallinger.

Trustees of Sinking Fund of Water Loan.

The Mayor, President of the Common Council, and City Treasurer, *ex officiis.*

Trustees of the Sanders Temperance Fund.

The Mayor, the President of the Board of Aldermen, and the President of the Common Council, *ex officiis.*

Trustees of the Bridge Charitable Fund.

The Mayor, the President of the Board of Aldermen, and the President of the Common Council, *ex officiis.*

Trustees of the Dowse Institute.

Hon. Alvin F. Sortwell, *Mayor*, }
Albert S. Apsey, *President of Common Council*, } *ex officiis*.

Willard A. Bullard.
Frank A. Allen.
(Vacancy, not filled.)

Senators in General Court.

Frederick W. Dallinger.
Second Middlesex District, Wards, 1, 2, 4, 5.

James E. Hayes.
Second Suffolk District, Ward 3.

Representatives in General Court.

James J. Myers.
Jeremiah F. Donovan.
John H. Ponce.
James W. Coleman.
David T. Dickinson.
George S. Evans.
William R. Davis.

Third District Court of Eastern Middlesex.

Standing Justice.

Charles Almy.

Special Justices.

Samuel W. McDaniel. Augustine J. Daly.

Clerk.

Emerson W. Law.

Probation Officer.

Frederick W. Hagar.

Fence Viewers.

Colin Chisholm.
William H. Gray.
Lewis M. Hastings.

Board of Civil Service Examiners.

William Taggard Piper, *Chairman.*

Michael Corcoran.
Archibald M. Howe.
Charles H. Morse.
William Taggard Piper.

Secretary.

Charles H. Morse.

Board of Engineers of the Fire Department.

Chief Engineer.

Thomas J. Casey.

Call District Chiefs.

Nathaniel W. Bunker. William B. Cade.

Police Department, 1897.

Chief of Police.

Lothrop J. Cloyes.

Captains of Police.

DISTRICT NO. 1.	DISTRICT NO. 2.	DISTRICT NO. 3.
Mark J. Folsom.	John F. Murray.	Frederick B. Pullen.

Chief Inspector.	*Clerk.*
Captain James E. Murray.	Charles W. Priest.

Court Officer.

Sergt. William F. Batchelder.

Sergeants of Police.

DISTRICT I.	DISTRICT II.	DISTRICT III.
Daniel Callahan.	James S. Alexander.	Charles L. Pike.
Andrew Sproul.	Dennis Corcoran.	William Mullett.
David A. Stevens.		

Patrolmen.

(With the Number of their Badges.)

DISTRICT I.

No. of Badge.	
51	Richard H. Aylward.
7	George T. Barrington.
28	Edward F. Belcher.
53	Elbridge S. Blen.
69	Michael J. Brennan.
22	Thomas M. Campbell.
25	Edward J. Comerford.
29	Michael J. Conry.
20	Timothy Corcoran.
66	James A. Cox.
40	Patrick Doyle.
8	Joseph H. Furbush.
2	William H. Graves.
12	Timothy J. Hartnett.
49	Simon D. Hiscock.
47	Robert T. Hixon.
58	James H. H. Holt.
33	William H. H. Howe.
17	Dexter Jewett.
32	James M. Keaney.
35	Fred L. Ladd.
67	Dennis F. Leahy.
44	Charles C. Marston.
55	John P. Maloy.
10	John J. McBride.
16	Edward J. McCabe.
1	John E McCrehan.
18	James E. McNulty.
85	Charles H. Presho.
62	Bernard J. Roper.
6	Leonard Shackford.
21	George Smyth.
24	Joseph C. Temple.
42	John H. Wells.
80	Edward J. Welch.
3	Orrin B. White.
48	John E. Winslow.

DISTRICT II.

No. of Badge.	
56	John Coulter.
34	Michael Culhane.
68	John W. Deehan.
50	Thomas F. Dynan.
74	James B. Forristall.
38	Michael A. Ginty.
41	John J. Griffiths.
82	Mortimer M. Hackett.
77	John A. Hezlitt.
14	Benjamin F. Higgins.
11	Henry C. Jones.
23	Frederick W. Law.
79	Edward J. Malley.
72	Bernard McCaffrey.
30	Jeremiah McCarthy.
26	James L. McElroy.

No. of Badge.	
13	Benjamin F. McKeen.
64	William H. McMenimen.
75	Simon J. Mulvaney.
45	Patrick F. Murray.
43	Robert E. Mullen.
4	Michael Neilon.
59	Thomas J. Real.
70	Frederick A. Robinson.

No. of Badge.	
31	William H. Robertson.
73	Thomas P. Rowe.
78	William H. Rowe.
65	John E. Shaughnessy.
61	Cornelius Sullivan.
57	David F. Walsh.
54	John Wiley.

DISTRICT III.

No. of Badge.	
60	Charles F. Aberle.
5	Frederick Apel.
36	William A. Butcher.
71	Daniel F. Counihan.
81	Herbert Gordon.
9	James P. Hall.
37	Patrick F. Hurley.
27	Charles J. McCann.

No. of Badge.	
39	Joseph F. McCorry.
15	William F. McKeown.
76	William N. Mullins.
83	Ralph R. Rice.
19	Benjamin C. Scully.
46	Frank W. Scobey.
63	John W. Skelley.

Drivers of Patrol Wagons.

DISTRICT II.	DISTRICT III.
John T. Cook.	John Sullivan.
John J. McCauley.	John Coffey.

Matrons.

Ellen S. Haines.
Augusta M. Stearns.

Policemen.

(Without pay — within the Civil Service.)

William H. Aberle.
Horace A. Allyn.
John A. Austin.
John J. Aylward.
Richard Balmer.
John A. Bartlett.
Charles W. Brackett.
James T. Brassil.
Timothy J. Breen.
James K. Bresnan.
James H. Briggs.
Daniel A. Buckley.
Ferdinand N. Buffum.
Nathaniel W. Bunker.
James Burke.
Thomas F. Burke.
William Burgess.
Samuel Busnach.
William B. Cade.
William H. Cairns.
Thomas J. Casey.
James Carter.
Moses M. Child.
Charles S. Childs.
Ambrose H. Clark.
Noah M. Cofran.
John P. Conry.
Patrick Corcoran.

Joseph A. Cox.
Vespasian Danforth.
Abner F. Davis.
Anton B. Diehl.
Daniel K. Dinsmore.
Joseph J. Donahue.
Patrick F. Dunlea.
Martin L. Eldridge.
Frederick M. Ellis.
Matthew W. Fleck.
Thomas Flynn.
Oliver G. Fosdick.
William Foster.
James H. Furfey.
Daniel J. Gavin.
Charles A. Gay.
Osmond Glidden.
Eli L. Goodrow.
James Grant.
Henry L. Hale.
Fred E. Hewett.
Edward F. Horrigan.
Thomas M. Howard.
J. Lewis Howe.
William Hunnewell.
Samuel F. Hunt.
Oscar A. Johnson.
Thomas W. Jones.
John Kelleher.
Conrad D. Kinnear.
William B. Lehmkuhl.
James W. Lovering.
James H. Lyons.
George J. Mahoney.
Francis M. Mason.
Arthur G. McArthur.
John H. McCarthy.
Richard M. McFadden.
Frank A. McLaughlin.
John R. McPeake.
George W. Montgomery.
Thomas Montgomery.
Charles H. Murphy.
Dennis Murphy.
Nathaniel M. Neal.
Augustus W. Nelson.
James H. Newman.
Richard F. Nott.
Francis A. Osborn.
Joseph W. Parks.
George A. Parmenter.
George A. Patten.
Francis L. Pratt.
Charles L. Russell.
Charles M. Sanborn.
John F. Sharkey.
John T. Shea.
Edward Smith.
Patrick H. Sullivan.
John J. Sweeney.
Michael J. Whalen.
Clarence H. Whiting.
Frank Wilson.
George Wood.

Policemen.

(Without pay.)

Walter J. Anderson.
James T. Barrett.
Charles A. Bassett.
George W. Bates.
Charles E. Bramhall.
Edwin C. Brooks.
Edward A. Bullock.
Andrew Burk.
Lucian S. Cabot.
Lorenzo Carberg.
John Carmichael.
John I. Carroll.
John Clark.
Patrick Clark.
Frederick Clover.
Gideon H. Cloyes.

John Coffee.
John T. Cook.
Jacentho M. Cravallo.
William H. Cutler.
Charles O. Dam.
Charles A. Day.
John M. Day.
Felix Dasnoit.
Michael Doerr.
James Doherty.
William H. Donovan.
John F. Donnelly.
Rufus S. Downe.
James F. Dunn.
Thomas Elword.
Manuel Francis.
Charles E. Goodrow.
James A. Gorman.
Timothy W. Hannaford.
John J. Hertach.
William H. Hill.
John Hollenbeck.
John W. Hope.
George P. Knowlton.
Everett W. Langley.
Charles E. W. Lawson.
Charles A. Laighton.
Horace D. Litchfield.
Herbert E. Lombard.
Jeremiah J. Long.
William L. Lyon.
John J. McCarthy.
John McCauley.
Thomas H. McManus.
Hopkins E. Moore.
Charles Morris.
Charles H. Morse.
John Moulton.
Jeremiah Murphy, Jr.
Albert Murray.
James O'Brien.
John A. O'Connor.
Harlan Z. Page.
James H. Parker.
Robert A. Parry.
Melvin W. Perry.
William C. Pierce.
Howard E. Pike.
William H. Porter.
John F. Powers.
William E. Ricker.
Albert F. Roberts.
Michael A. Shaughnessy.
John T. Shea.
Alex. F. Shepherd.
Thomas R. Sheridan.
Joseph S. Skelton.
James C. Scorgie.
Albert Smith.
Frank H. Stedman.
Richard W. Sutton.
John Sullivan.
Samuel E. Tasco.
John Taylor.
Thomas M. Thomas.
Edgar L. Wentworth.
Edward W. White.
Herbert H. White.

Keeper of Lock-Ups.

Lothrop J. Cloyes.

Person to receive Information of Damages by Dogs.

(Ch. 454, Acts 1889.)

Lothrop J. Cloyes.

Truant Officers.

Lucian S. Cabot.
John Carmichael.
Francis M. Mason.
William H. Porter.

Constables.

George T. Barrington.
William F. Batchelder.
Lothrop J. Cloyes.
Vespasian Danforth.
John M. Davis.
Mark J. Folsom.
Joseph Fox.
Walter F. Hayward.
Warren Ivers.
George H. Lambert.
James E. Lennon.
John Loughrey.
John T. Lynch.
John F. Murphy.
James E. Murray.
John F. Murray.
John J. Rafferty.
Frank E. Shaw.
John T. Shea.
John W. Skelley.
Arthur M. Stewart.
Edward M. Williams.
Cyril Wright.

Undertakers.

Stephen Anderson.
David F. Corcoran.
John W. Coveney.
Daniel P. Danehy.
Thomas Devens.
Arthur S. Fudge.
David Fudge.
Samuel F. Hunt. [illegible]
George H. Kelley.
Joseph J. Kelley.
Gustavus King.
C. Henry Lockhart.
Abiel E. Long.
George W. Long.
Horace D. Litchfield.
Judson Litchfield.
James McGovern.
John J. Murphy.
James F. Mullen.
William H. Porter.
Charles F. Regan. Dead
George F. Ricker.
James H. Ross.
William Ross.
John Ross.
Daniel P. Shea.
James J. Shea.
John T. Shea.
Ralph Smith.
William Stinson.
William A. Taylor.
Benjamin F. Wyeth.
Henry A. Wyeth.

Auctioneers.

John J. Ahern.
Daniel A. Buckley.
Wilbur S. Clarke.
John W. Coveney.
Watson G. Cutter.
Walter B. Danforth.
James A. Donovan.
William R. Ellis.
Paul Epstein.
John E. Fairbairn.
Max Frankenstein.
Leander M. Hannum.
Edward R. Harris.
Daniel J. Hayes.
Stephen H. Harrington.
John A. Kelleher.

Samuel R. Knights.
James E. Lennon.
John T. Lynch.
John Mahady.
Henry L. Marcy.
John F. Murphy.
Thomas C. Scottron.
Frank E. Shaw.
Francis Traynor.
Walter C. Wardwell.
Cyril Wright.
Bartholomew M. Young.

Field Drivers.

Charles F. Aberle.
Richard H. Aylward.
Frederick Apel.
George T. Barrington.
Edward F. Belcher.
Elbridge S. Blen.
Michael J. Brennan.
William A. Butcher.
Thomas M. Campbell.
Michael J. Conry.
Timothy Corcoran.
James A. Cox.
John Coulter.
Michael Culhane.
Edward J. Comerford.
Daniel F. Counihan.
Thomas F. Dynan.
John W. Deehan.
Patrick Doyle.
James B. Forristall.
Joseph H. Furbush.
Michael A. Ginty.
Herbert Gordon.
William H. Graves.
John J. Griffiths.
Mortimer M. Hackett.
James P. Hall.
John A. Hezlitt.
Benjamin F. Higgins.
Robert T. Hixon.
James H. H. Holt.
William H. H. Howe.
Patrick F. Hurley.
Henry C. Jones.
Dexter Jewett.
James M. Keaney.
Fred L. Ladd.
Frederick W. Law.
Dennis F. Leahy.
Charles C. Marston.
John P. Maloy.
Edward J. Malley.
Edward J. McCabe.
Bernard McCaffrey.
John J. McBride.
Joseph F. McCorry.
Jeremiah McCarthy.
John E. McCrehan.
Charles J. McCann.
James L. McElroy.
Benjamin McKeen.
William F. McKeown.
William H. McMennimen.
James E. McNulty.
Robert E. Mullen.
William N. Mullins.
Simon J. Mulvaney.
Patrick F. Murray.
Michael Neilon.
Charles H. Presho.
Thomas J. Real.
Ralph R. Rice.
Bernard J. Roper.
Frederick A. Robinson.
William H. Robertson.
Thomas P. Rowe.
William H. Rowe.
Frank W Scobey.
Benjamin C. Scully.
John E. Shaughnessy.

John W. Skelley.
George Smyth.
Cornelius Sullivan.
Joseph C. Temple.
David H. Walsh.
Edward J. Welch.
John H. Wells.
Orrin B. White.
John Wiley.
John E. Winslow.

Measurers of Wood and Bark.

Robert D. Carter.
Herbert T. Lawrence.
Charles H. Lealand.
Robert A. Parry.
Joseph P. Quilty.
George Stephens.

Pound Keeper.

Robert Holden.

Committee for the Preservation of Fish.

Edwin C. Brooks.
Lewis M. Hastings.
Theodore L. Pike.

Hay Weigher.

Edmund I. Train.

Weighers of Coal.

Hiram W. Brooks.
Silas E. Buck.
Eugene A. F. Burtnett.
Robert D. Carter.
James W. Coleman.
Ernest P. Cook.
Stanley Jennison.
Charles H. Lealand.
John Moynahan.
Winslow C. Pierce.
David Proudfoot.
George H. Rugg.
George M. Smith.
Edmund I. Train.
Charles Turner.

Inspectors of Junk Shops, Pawnbrokers' Shops, and Second-hand Stores and Dealers.

Mark J. Folsom.
John F. Murray.
James E. Murray.
Frederick B. Pullen.

Public Weighers.

Melvin McFarland.
Nathan H. Holbrook.
Alexander S. Ford.
William Maloney.
Robert C. Bird.
John M. Guiney.
Edward J. Carroll.
Isaac A. Chandler.
Thomas H. Shea.
Robert Holden.
Edmund I. Train.

Inspector of Pressed or Bundled Hay or Straw.

Harvey O. Titus.

Measurer of Grain.

Albert F. Roberts.

Person

To seize all baskets, measures or vessels used or intended to be used in measuring Charcoal, as provided in Sect. 88, Chap. 60, P. S.

Albert F. Roberts.

Measurer and Surveyor.

Henry L. Hale.

Surveyor of Mechanics' Work.

Charles A. Mason.

Persons to Cause to be Properly Interred the Bodies of Soldiers and Sailors.

John Donelan.
George S. Evans.
William H. Eveleth.
Alphonzo M. Lunt.

CITY ELECTION,

DECEMBER 15, 1896

VOTES CAST FOR CITY OFFICERS, AS CORRECTED
BY RECOUNTS

WARD AND PRECINCT.	Mayor.					Question of Liquor Licenses.			
	NAMES OF CANDIDATES.								
	Whole Number.	George A. Perkins.	Alvin F. Sortwell.	Scatterings.	Blanks.	Whole Number.	Yes.	No.	Blanks.
Ward 1, Precinct 1...	342	107	221		14	342	110	202	30
" 1, " 2...	402	171	212		19	402	130	242	30
" 1, " 3...	361	236	107		18	361	184	141	36
" 1, " 4...	304	74	208	1	21	304	52	230	22
" 1, " 5...	465	106	322	2	31	465	62	365	38
Ward 1, Totals......	1,874	694	1,070	3	103	1,874	538	1,180	156
Ward 2, Precinct 1...	544	291	232		21	544	340	145	59
" 2, " 2...	510	215	262		33	510	232	239	39
" 2, " 3...	299	149	113	1	36	299	166	103	30
" 2, " 4...	403	132	248		23	403	139	238	26
" 2, " 5...	428	58	340		30	428	64	342	22
" 2, " 6...	383	148	219	1	15	383	150	207	26
" 2, " 7...	516	150	332		34	516	124	354	38
Ward 2, Totals.......	3,083	1,143	1,746	2	192	3,083	1,215	1,628	240
Ward 3, Precinct 1...	403	212	158	1	32	403	211	124	68
" 3, " 2...	443	212	203	1	27	443	250	133	60
" 3, " 3...	441	250	163		28	441	290	89	62
" 3, " 4...	410	213	179		18	410	241	112	57
Ward 3, Totals.......	1,697	887	703	2	105	1,697	992	458	247
Ward 4, Precinct 1...	314	119	175		20	314	126	163	25
" 4, " 2...	284	78	185		21	284	77	187	20
" 4, " 3...	271	126	125		20	271	117	137	17
" 4. " 4...	395	89	272	3	31	395	69	304	22
" 4, " 5...	294	83	191	2	18	294	68	201	25
" 4, " 6...	354	73	255	2	24	354	58	271	25
" 4, " 7...	330	152	149	1	28	330	138	164	28
" 4, " 8...	322	116	184		22	322	108	180	34
Ward 4, Totals.......	2,564	836	1,536	8	184	2,564	761	1,607	196
Ward 5, Precinct 1...	335	48	263	2	22	335	33	274	28
" 5, " 2...	334	139	176	1	18	334	108	201	25
" 5, " 3...	392	112	260	1	19	392	76	277	39
" 5, " 4...	313	210	91		12	313	149	128	36
Ward 5, Totals.......	1,374	509	790	4	71	1,374	366	880	128
Grand Totals.......	10,592	4,069	5,845	19	655	10,592	3,872	5,753	967

Aldermen.

WARD AND PRECINCT.	NAMES OF CANDIDATES.														
	John J. Ahern.	Peter P. Bleiler.	Russell Bradford.	Watson G. Cutter.	Eben H. Googins.	Charles P. Keith.	Clement G. Morgan.	John L. Odiorne.	John T. Shea.	Warren F. Spalding.	Marshall N. Stearns.	Walter C. Wardwell.	James A. Wood.	Scattering.	Blank.
Ward 1, Prec't 1.	127	210	218	215	176	194	170	207	185	181	186	205	211		1,277
" 1, " 2.	142	238	259	252	226	233	223	241	206	224	258	282	248	1	1,389
" 1, " 3.	227	142	150	122	130	114	107	131	246	112	136	172	138		2,044
" 1, " 4.	75	215	228	231	193	219	206	225	140	211	197	243	219	1	741
" 1, " 5.	97	337	335	350	293	320	317	312	216	319	320	346	339		1,192
Ward 1, Totals.	668	1,142	1,190	1,170	1,018	1,080	1,023	1,116	993	1,047	1,097	1,248	1,155	2	6,643
Ward 2, Prec't 1.	377	179	157	149	151	134	185	206	431	143	117	126	145		3,484
" 2, " 2.	279	254	231	231	214	216	264	298	326	208	187	206	231		2,465
" 2, " 3.	176	89	87	98	79	83	138	133	172	80	96	82	86		1,890
" 2, " 4.	158	233	241	250	232	231	218	252	182	219	208	231	243		1,535
" 2, " 5.	86	330	327	363	329	342	311	376	216	331	326	340	357		674
" 2, " 6.	200	175	162	168	159	159	178	205	236	139	142	160	172		1,958
" 2, " 7.	191	319	311	334	298	326	308	357	272	307	308	307	324		1,714
Ward 2, Totals.	1,467	1,579	1,516	1,593	1,462	1,491	1,602	1,827	1,835	1,427	1,384	1,452	1,558		13.720
Ward 3, Prec't 1	245	161	121	103	94	103	100	104	318	92	93	102	104		2,693
" 3, " 2.	252	222	155	130	112	122	136	121	300	118	119	114	129		2,843
" 3, " 3.	320	128	96	82	76	87	94	89	357	93	79	82	97	2	3,169
" 3, " 4.	251	153	126	110	97	100	115	121	300	115	87	101	118		2,716
Ward 3, Totals.	1,068	664	498	425	379	412	445	435	1,275	418	378	399	448	2	11,421
Ward 4, Prec't 1.	129	190	192	190	187	193	158	187	168	188	166	161	183		1,162
" 4, " 2.	71	181	176	194	185	197	173	191	123	194	178	177	188	1	895
" 4, " 3.	128	149	134	145	152	151	113	141	169	131	130	124	148		1,166
" 4, " 4.	104	276	252	282	277	268	260	257	183	300	25	251	282		1,099
" 4, " 5.	81	207	186	195	187	194	185	178	114	193	189	173	192		960
" 4, " 6.	69	246	227	270	244	249	224	249	138	261	242	237	260	2	976
" 4, " 7.	170	168	169	163	185	150	137	166	199	156	141	141	176	1	1,508
" 4, " 8.	131	184	169	195	174	184	172	163	169	182	158	157	176	1	1,327
Ward 4, Totals	883	1,601	1,505	1,634	1,591	1,586	1,422	1,532	1,263	1,605	1,458	1,421	1,605	5	9,093
Ward 5, Prec't 1.	62	245	249	275	234	253	240	266	150	248	229	245	278		711
" 5, " 2.	143	189	177	204	164	171	164	176	204	169	182	180	192	10	1,349
" 5, " 3.	115	266	258	288	235	258	233	265	189	250	249	261	287		1,158
" 5, " 4.	224	150	122	141	96	104	91	111	214	92	99	99	132	1	1,767
Ward 5, Totals.	544	850	806	908	729	786	728	818	757	759	759	785	889	11	4,985
Grand Totals.	4,630	5,836	5,515	5,730	5,179	5,355	5,220	5,728	6,123	5,256	5,076	5,305	5,655	20	45,86

Candidates for Common Council.

WARD ONE.

PRECINCTS.	Melville C. Beedle.	William F. Brooks.	A. Sherburne K. Clark.	George E. Saunders.	Scattering.	Blank.
Precinct 1...........	226	290	217	243	1	391
" 2...........	267	319	270	284	2	466
" 3...........	146	217	166	156	3	756
" 4...........	235	248	241	242	1	249
" 5.	361	362	343	366	2	423
Totals.............	1,235	1,436	1,237	1,291	9	2,285

WARD TWO.

PRECINCTS.	William J. Campbell.	Sedley Chaplin.	Fred A. Ferris.	Frank McLaughlin.	Charles H. Montague.	John E. Smith.	Scattering.	Blank.
Precinct 1...........	164	161	167	381	167	297		1,383
" 2...........	211	230	229	291	260	299	1	1,029
" 3...........	86	84	82	153	94	123		873
" 4...........	179	237	228	204	240	263	1	663
" 5...........	148	344	328	265	361	322		372
" 6...........	143	177	179	214	173	243		786
" 7...........	217	363	300	297	366	337		700
Totals.............	1,148	1,596	1,513	1,805	1,661	1,884	2	5,806

Candidates for Common Council. — Continued.

WARD THREE.

PRECINCTS.	Thomas Conroy.	George H. Dinan.	William M. Dumbrisky.	Frederick A. Gilligan.	Cornelius Minihan.	Sam H. Mitchell.	John J. Scott.	James J. Scully.	Blank.
Precinct 1...........	29	238	23	158	147	154	184	161	518
" 2...........	59	173	40	192	217	201	195	174	521
" 3...........	46	208	18	198	213	170	219	230	462
" 4...........	78	113	27	154	213	162	164	177	552
Totals.............	212	732	108	702	790	687	762	742	2,053

WARD FOUR.

PRECINCTS.	Ezra P. Baker.	David W. Butterfield.	Daniel S. Coolidge.	William P. Davis.	Timothy W. Good.	Alfred E. Hughes.	Hugh E. McGoldrick.	Hamilton H. Perkins.	William J. Rounds.	Scattering.	Blank.
Precinct 1...........	114	112	128	158	102	118	151	142	93		452
" 2...........	124	123	133	129	74	80	98	139	123	1	396
" 3...........	77	66	115	131	110	99	142	124	99		392
" 4...........	161	130	224	211	108	163	166	265	171		376
" 5...........	130	127	170	152	74	113	102	157	114		331
" 6...........	168	160	229	164	63	159	121	204	167		335
" 7...........	89	81	133	195	163	108	204	130	78		469
" 8...........	114	98	147	146	110	118	133	141	107		496
Totals.............	977	897	1,279	1,286	804	958	1,117	1,302	952	1	3,247

Candidates for Common Council. — Concluded.

WARD FIVE.

PRECINCTS.	Whole Number.	Albert S. Apsey.	Daniel P. Danehy.	Charles S. Fosgate.	Blank.
Precinct 1	335	273	36	259	102
Precinct 2	334	182	136	168	182
Precinct 3	392	301	86	270	127
Precinct 4	313	124	207	78	217
Totals	1,374	880	465	775	628

Candidate for Assessor.

[By Wards.]

WARDS.	Joshua G. Gooch.	Scattering.	Blank.
Ward 1	1,321	12	540
Ward 2	1,883	2	1,198
Ward 3	709		988
Ward 4	1,733		831
Ward 5	893		481
Totals	6,539	14	4,038

Candidates for School Committee.

WARDS.	FOR THREE YEARS. NAMES OF CANDIDATES.															FOR TWO YEARS. NAMES OF CANDIDATES.						Whole Number of Ballots Cast.
	Ward 1.			Ward 2.			Ward 3.			Ward 4.			Ward 5.			Ward 3.			Ward 4.			
	Frank W. Taussig.	Scattering.	Blank.	Robert O. Fuller.	Scattering.	Blank.	Edward B. Malley.	Scattering.	Blank.	Mary E. Mitchell.	Scattering.	Blank.	George P. Johnson.	Scattering.	Blank.	Ellen M. Coburn.	Scattering.	Blank.	Frank C. Chamberlain	Scattering.	Blank.	
Ward 1........	1,340	2	589	1,193		761	1,188	2	764	1,170		784	1,113		841	1,131		823	1,101		854	1,955
Ward 2........	1,573		1,592	1,868	2	1,295	1,654		1,511	1,557		1,608	1,422		1,743	1,482	1	1,682	1,419		1,746	3,165
Ward 3........	504	1	1,217	498	1	1,223	867	5	850	515		1,207	458		1,264	653	1	1,068	434		1,288	1,722
Ward 4........	1,547		1,109	1,618	1	1,037	1,447	1	1,208	1,756	1	899	1,400		1,256	1,393		1,263	1,504	1	1,151	2,656
Ward 5........	838		590	844		584	840		588	827		601	905		523	807		621	767		661	1,428
Totals......	5,802	3	5,097	6,021	4	4,900	5,996	8	4,921	5,825	1	5,099	5,298		5,627	5,466	2	5,457	5,225	1	5,700	10,926

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